

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

DORIS SUE ALLEN, DONNA S. LUCAS, DANA KELLEN, HEDY L. ANSELMAN, TIMOTHY R. GARRETT, JONATHAN G. AXELROD, JOHN A. BOARDMAN, WARREN J. PEPICELLI,  
AND ALL OTHERS SIMILARLY SITUATED,

Plaintiffs,

v.

BANK OF AMERICA CORPORATION; BANK OF AMERICA, N.A.; MERRILL LYNCH, PIERCE, FENNER & SMITH INC.; MERRILL LYNCH CAPITAL SERVICES, INC.; BARCLAYS PLC; BARCLAYS BANK PLC; BARCLAYS GROUP US INC.; BARCLAYS CAPITAL INC.; BNP PARIBAS GROUP; BNP PARIBAS NORTH AMERICA, INC.; CITIBANK, N.A.; CITIGROUP, INC.; CREDIT SUISSE GROUP AG; CREDIT SUISSE AG; CREDIT SUISSE SECURITIES (EUROPE) LIMITED; CREDIT SUISSE SECURITIES (USA) LLC; DEUTSCHE BANK AG; THE GOLDMAN SACHS GROUP, INC.; GOLDMAN, SACHS & CO.; HSBC HOLDINGS PLC; HSBC BANK PLC; HSBC NORTH AMERICA HOLDINGS, INC.; HSBC BANK USA, N.A.; JPMORGAN CHASE BANK, N.A.; JPMORGAN CHASE & CO; MORGAN STANLEY; MORGAN STANLEY CAPITAL SERVICES LLC ; MORGAN STANLEY & CO., LLC; ROYAL BANK OF SCOTLAND GROUP PLC; ROYAL BANK OF SCOTLAND PLC; RBS SECURITIES, INC.; UBS AG; UBS SECURITIES, LLC; UBS INVESTMENT BANK; UBS INVESTMENT BANK, AMERICAS and DOES 1-40,

Defendants.

*This Document Relates to:*

IN RE: FOREIGN EXCHANGE BENCHMARK RATES ANTITRUST LITIGATION

No: 15 Civ. 4285 (LGS)

**JURY TRIAL DEMANDED**

No. 1:13-cv-07789 (LGS)

**SECOND AMENDED CLASS ACTION COMPLAINT**

## TABLE OF CONTENTS

NATURE OF THE ACTION .....	1
JURISDICTION AND VENUE .....	7
PARTIES .....	8
Plaintiffs .....	8
Defendants.....	11
DEFENDANTS' UNLAWFUL conduct manipulated the fx markets AT THE EXPENSE OF ERISA EMPLOYEE BENEFIT PLANS AND THEIR PARTICIPANTS .....	18
A. The FX Market.....	18
B. FX Fixing Rates and Uses.....	23
C. WM/Reuters Closing Spot Rates Are Vulnerable to Manipulation.....	26
D. Defendants Dominate the FX Market .....	27
E. The FX Market Is Unregulated and Opaque.....	30
F. Defendants Shared Order Information and Trading Strategies In Order To Manipulate FX Pricing Against ERISA Retail Clients.....	30
G. Defendants Manipulated Benchmark Rates.....	34
H. Defendants Shared Confidential Customer Order Information to Further Their Manipulation .....	44
I. Defendants Used Other Collusive Strategies to Amplify the Benefits of Sharing Information .....	47
J. Defendants Manipulated the Bid/ask Spreads for Various Currencies....	48
K. Manipulation of Electronic Trading Platforms .....	58
L. Government Investigations .....	64
1. The November 2014 Announcements of Agreements and Consent Orders.....	64
2. The May 20, 2015 Announcements of Agreements.....	68
3. The November 2015 Barclays Consent Agreement on "Last Look".	73
4. Other Investigations and Remedial Measures.....	74
THE ERISA TRUSTS, BENEFIT PLANS AND ERISA CLAIMS .....	75
A. The Bridgestone Americas Salaried Employees Retirement Plan.....	77
B. The Caterpillar Inc. Retirement Income Plan .....	78
C. The Caterpillar Inc. Retiree Benefit Program .....	79
D. The Health Corporation of America 401(k) Plan and The Health Corporation of America Retirement Plan .....	80

E. The Baker Hughes Incorporated Thrift Plan.....	81
F. The International Ladies Garment Workers Union Death Benefit Fund	282
G. Defendants' Fiduciary Status and ERISA Violations.....	83
PLAINTIFFS ARE ENTITLED TO THE BENEFIT OF ERISA'S .....	85
FRAUD OR CONCEALMENT LIMITATIONS PERIOD .....	85
CLASS ALLEGATIONS .....	89
CLAIMS FOR RELIEF .....	93
<b>COUNT I</b> .....	93
<b>COUNT II</b> .....	96
<b>COUNT III</b> .....	98
<b>COUNT IV</b> .....	99
<b>COUNT V</b> .....	101
<b>COUNT VI</b> .....	102
<b>COUNT VII</b> .....	105
<b>COUNT VIII</b> .....	106
<b>COUNT IX</b> .....	107
JURY DEMAND .....	109
PRAYER FOR RELIEF .....	109

*“....if you ain’t cheating, you ain’t trying.”*

Statement In Electronic Chat Room, Barclays New York Branch  
Vice President, November 5, 2010 (misspellings corrected)<sup>1</sup>

\* \* \* \* \*

## NATURE OF THE ACTION

1. This is a civil enforcement action under the Employee Retirement Income Security Act of 1974 (“ERISA”), 29 U.S.C. §1132(a)(2) and (a)(3), to recover losses and obtain equitable relief caused by Defendants’ breaches of their fiduciary duties, and their participation in prohibited transactions in connection with foreign currency, or FX, trading related to ERISA employee benefit plans (“Plans”). It is brought on behalf of the named Plaintiffs’ ERISA employee benefit Plans which cover more than 400,000 plan participants and beneficiaries, and as a class action on behalf of participants, beneficiaries, and named fiduciaries of all other similarly situated Plans.<sup>2</sup> Defendants’ violations of ERISA began as early as January 2003 and extended through the end of 2014 (“Class Period”).

---

<sup>1</sup> May 19, 2015 Consent Order, New York State Department of Financial Services and Barclays, 13-14, (available at <http://www.dfs.ny.gov/about/ea/ea150520.pdf>).

<sup>2</sup> The named Plaintiffs are Doris Sue Allen, Donna S. Lucas, Dana Kellen, Hedy L. Anselman, Timothy R. Garrett, Jonathan G. Axelrod, John A. Boardman, and Warren J. Pepicelli. The Plans associated with the named plaintiffs are the Caterpillar Inc. Retirement Income Plan (“Caterpillar Retirement Plan”), the Caterpillar Inc. Retiree Benefit Program (“Caterpillar Health Plan”), the Bridgestone Americas Salaried Employees Retirement Plan (“Bridgestone Retirement Plan”), the Health Corporation of America 401(k) Plan (“HCA 401(k) Plan”), the Hospital Corporation of America Retirement Plan, the Baker Hughes Incorporated Thrift Plan (“Baker Hughes Thrift Plan”), and the International Ladies Garment Workers Union Death Benefit Fund 2 and predecessor plans (“ILGWU Death Benefit Fund”).

2. Defendants' fiduciary duties under ERISA are the "highest known to the law."<sup>3</sup> These duties required Defendants to act prudently and solely in the interest of the Plans' participants and beneficiaries and to not engage in prohibited transactions, which are *per se* violations of ERISA.

3. Defendants had fiduciary duties under ERISA because they exercised discretionary authority or control over management of the ERISA Plans, or exercised authority or control with respect to the disposition of Plan assets.

4. Defendants did not fulfill those duties. Instead, they enriched themselves at the expense of Plaintiffs and the Class.

5. Defendants further participated in fiduciary breaches related to foreign currency trading, as both parties-in-interest and non-parties-in-interest to the Plans, in violation of ERISA.

6. The FX market is the world's largest and most actively traded financial market. As of April 2013, trading in the global FX markets averaged \$5.3 trillion per day,<sup>4</sup> and in the domestic U.S. markets, FX trading averaged \$1.263 trillion per day.<sup>5</sup>

7. Defendants dominate the FX markets and have a combined global market share of 84%.<sup>6</sup>

---

<sup>3</sup> *Donovan v. Bierwirth*, 680 F.2d 263, 272 n.8 (2d Cir. 1982).

<sup>4</sup> Bank for International Settlements, Triennial Central Bank Survey, Global foreign exchange market turnover in 2013 (February 2014) (available at <https://www.bis.org/publ/rpfxf13fxt.pdf>), at Table 1 [hereinafter BIS Triennial Bank Survey 2013].

<sup>5</sup> Federal Reserve Bank of New York, The Foreign Exchange and Interest Rate Derivatives Markets: Turnover in the United States (April 2013) (available at <http://nyfed.org/1dnmTlx>), at 3 [hereinafter Fed Triennial Bank Survey 2013].

<sup>6</sup> Euromoney FX Survey 2013: Overall Results.

8. Over the last two years, evidence has emerged that shows that Defendants have been manipulating the FX markets for over a decade. Their manipulation affected the pricing of hundreds of billions of dollars of FX Transactions. In effect, they imposed an illegal, secret tax, not only on private pension plans in the U.S., but more broadly on the national economies of Western Europe and North America. And Defendants went to considerable lengths to hide their conduct so they could profit at the expense of their clients, including their ERISA clients.

9. Sometimes the defendants worked together to manipulate the wholesale and retail FX markets.<sup>7</sup> A particularly egregious example of Defendants' collusive behavior was manipulation of interbank wholesale fixing rates, which were the basis for many FX Transactions. Fixing rates refer to benchmark exchange rates for currency pairs. Fixing rates are set based on trading that is done in a short period. For example, during the Class Period, the most widely used fixing rates, the WM/Reuters Closing Spot Rates (often referred to as the "London fix") were based on trading that occurred during the 30 seconds before and the 30 seconds after 4:00 p.m. London time (11:00 a.m. New York time).<sup>8</sup>

10. Defendants exchanged confidential customer order information and trading positions with each other, often in closed network chat rooms with revealing names such as "The Cartel," "The Bandits' Club," and "The Mafia." They shared

---

<sup>7</sup> "Wholesale" refers to the interbank markets. "Retail" refers to the parallel market in which banks interact with non-bank customers, including ERISA Plans. This Complaint concerns both markets.

<sup>8</sup> This window was increased effective February 15, 2015 to 2 minutes and 30 seconds before and after the fix time.

information in part to agree on strategies for trading in and around the setting of fixing rates.

11. For example, traders routinely coordinated their trading strategies immediately before and during the fix to increase the effect of their trades on the fix rate and provided each other with confidential client information as part of that coordination.

12. Defendants also communicated with each other about their net customer orders so that they would know whether the fixing rates were likely to move higher or lower. Then they traded in ways that amplified that movement.

13. Defendants “cleared the decks,” or traded contrary orders well before the fix, rather than immediately before or during the fix, to diminish or eliminate the effect of those contrary orders on the fix rate.

14. Defendants matched or “netted out” customers’ buy and sell orders so that contrary orders would not be traded immediately before or during the fix.

15. Defendants amassed large positions in a currency to “build ammo” and then traded those positions, or unloaded the ammo, just before or during the fix. Defendants sold currency before the fix to help other Defendants build ammo to influence the fix rate.

16. Defendants failed to fill customer orders, delayed those orders, or otherwise “got out of the way” of traders making trades to influence the fix, if the orders would have diminished the desired move in the fix rate.

17. Defendants “banged the close,” or broke up large orders into smaller trades and timed trades immediately before and during the fix to increase the effect of those trades on the fix rate.

18. To maximize the manipulation of fixing rates, defendants “crossed the spread” or reached “deep into the book” by executing trades that were several levels removed from the best available rate.

19. Defendants “painted the screen” by placing phony orders with one another shortly before the fix to create the appearance of trading in a desired direction, but reversed the trades after the fix window closed.

20. Separate from the manipulation of fixing rates, Defendants also agreed to coordinate the bid/ask spreads for various currency pairs. The “bid” refers to the price at which the market is willing to buy a particular currency pair. The “ask” refers to the price at which the market is willing to sell a currency spread. The bid/ask spread is one of the ways that “liquidity providers” or “market makers” like Defendants make money, and in a properly functioning market, there should be competition among the banks on the bid/ask spreads. By agreeing to coordinate bid/ask spreads, Defendants effectively fixed prices for specific currency pairs.

21. Not all of Defendants’ misconduct was collusive, however. For example, Defendants routinely traded for their own accounts ahead of large customer orders that were likely to move markets. If a customer made a large, market-moving purchase of a currency, Defendants bought that currency before the customer’s purchase moved the rate higher. Conversely, if a customer made a large, market-moving sale of a currency, Defendants sold that currency before the customer’s sale moved the rate lower.

22. At least some Defendants also quoted a different bid/ask spread to customers based on whether the Defendants knew or believed that the customer was

buying or selling. The “markups” were the difference between the price the trader quoted to FX sales employees and the price that sales employees quoted to those customers.

23. FX sales employees often sat near traders on the floor or spoke by telephone and communicated orally to traders the direction in which to adjust quotes and by how much.

24. Some customers demanded to speak directly to the trader, or demanded to hear the communications between the sales employee and the trader on an “open line,” so that they could hear the “trader price” without a sales markup or markdown<sup>9</sup>. In those circumstances, Defendants’ sales employees used hand signals or other silent communication to indicate to traders to add a markup in one direction or the other and how much to add.

25. These Defendants almost never disclosed such markups to customers, but the markups were extremely lucrative.

26. According to a New York State Department of Financial Services’ (“NYS-DFS”) Consent Order with Barclays, such markups were a key revenue source, and were believed by sales employees to be “a significant factor in determining compensation.”<sup>10</sup>

27. Finally, as uncovered during another investigation by NYS-DFS, at least one Defendant, Barclays, routinely abused customers who traded over electronic trading platforms, and in particular customers who traded on its proprietary platform.

---

<sup>9</sup> Standard industry practice is to use the word “markup” to mean both the markup from the price the FX trader is charging for a currency sold to a client and markdown to mean a decrease in the price of the currency a trader is buying from a customer. Markdown is used throughout the complaint in the common industry sense.

<sup>10</sup> May 2015 NYS-DFS Barclays Consent Order at 14.

28. For example, Barclays built a “hold” period into its propriety platform, BARX. Barclays used this latency to reject customer orders in cases where the market moved in favor of the customer during the “hold” period. In cases where the market was neutral or moved beyond a certain threshold in favor of Barclays during the hold period, Barclays allowed the orders to go through. Barclays did not disclose how it applied this “last look” system to its customers, and on several occasions actively misled customers who asked why their orders had been rejected.

29. Law enforcement and regulatory authorities around the world have investigated, and in many cases continue to investigate, the misconduct of Defendants in the FX market. Many Defendants have already signed plea agreements, settlement agreements and consent orders with these governmental authorities related to their manipulation of the FX markets. These global investigations have caused Defendants to terminate or suspend numerous staff who formerly had supervisory authority over FX operations.

#### **JURISDICTION AND VENUE**

30. ERISA provides for exclusive federal jurisdiction over ERISA breach of fiduciary duty claims. 29 U.S.C. §1132(e)(1).

31. The Plans are “employee benefit plans” under ERISA, 29 U.S.C. §1002(3), and Plaintiffs are Plan participants, Plan beneficiaries, and Plan fiduciaries under ERISA. 29 U.S.C. §§1002(7) and (21). Plan participants, Plan beneficiaries and Plan fiduciaries are authorized to bring this sort of action to obtain appropriate relief for their Plans. 29 U.S.C. §1132(a)(2) and (3).

32. An action brought under Title I of ERISA may be brought in a district court of the United States where the plan is administered, where the breach took place, or where a defendant resides or may be found, and process may be served in any other district where a defendant resides or may be found. 29 U.S.C. §1132(e)(2). Each Defendant has undertaken deliberate conduct in this District and in the United States that is regular, continuous, and that relates to that Defendant's provision of foreign currency services to Plaintiffs and ERISA Plans. *Walden v. Fiore*, 134 S. Ct. 1115, 1121-1123 (2014).

33. This Court has subject matter jurisdiction over this action under 28 U.S.C. §1331 (federal question) and ERISA, 29 U.S.C. §1132(e)(1).

34. Venue is proper in this district under 28 U.S.C. §1391(b) and ERISA, 29 U.S.C. §1132(e)(2), because some or all of the fiduciary breaches for which relief is sought occurred in this district and the Defendants reside and may be found in this district.

## PARTIES

### **Plaintiffs**

35. Plaintiff Doris Sue Allen is a beneficiary of the Caterpillar Inc. Retirement Income Plan ("Caterpillar Retirement Plan"), a defined benefit plan. Her husband was employed by a Caterpillar corporation. Caterpillar is the world's leading manufacturer of construction and mining equipment, diesel and natural gas engines, industrial gas turbines, and diesel-electric locomotives. Allen is also a beneficiary of the Caterpillar Inc.

Retiree Benefit Program<sup>11</sup> (“Caterpillar Health Plan”), an employee benefit plan which provided health care benefits to Caterpillar employees and their families. During the Class Period, Allen received benefits from the Caterpillar Retirement Plan and Caterpillar Health Plan and relied on those benefits for her retirement security. During the Class Period, the assets of the Caterpillar Retirement Plan were invested through the Caterpillar Inc. Retirement Master Trust (“Caterpillar Retirement Master Trust”).<sup>12</sup> During the Class Period, the assets of the Caterpillar Health Plan were invested through the Caterpillar Inc. Group Insurance Master Trust (“Caterpillar Insurance Master Trust”). Allen resides in Ladd, Illinois.

36. Plaintiff Donna S. Lucas is a beneficiary of the Bridgestone Americas Salaried Employees Retirement Plan (“Bridgestone Retirement Plan”), a defined benefit plan. Bridgestone develops, manufactures, and markets tires. During the Class Period, Lucas received and receives a regular pension payment from the Bridgestone Retirement Plan. During the Class Period, the assets of the Bridgestone Retirement Plan were invested through the Bridgestone Americas, Inc. Master Pension Trust (“Bridgestone Master Pension Trust”).<sup>13</sup> Lucas resides in Wilson, North Carolina.

37. Plaintiff Dana Kellen is a participant in the HCA 401(k) Plan and was a participant in the former HCA Retirement Plan. Since 2003, Kellen has been an

---

<sup>11</sup> Before 2011 the Caterpillar Inc. Retiree Benefit Program was named the Caterpillar Group Insurance Program.

<sup>12</sup> Before November 2005 the Caterpillar Retirement Master Trust was named the Caterpillar Inc. Master Pension Trust.

<sup>13</sup> From November 2008 to November 2011 the Bridgestone Americas, Inc. Master Pension Trust was named the Bridgestone/Firestone, Inc. Master Retirement Trust. Before November 2008, it was named the Bridgestone Americas Holding, Inc. Master Trust.

employee of Hospital Corporation of America (“HCA”), a major provider of health care services in the United States. The HCA 401(k) Plan is, and the former HCA Retirement Plan was, a defined contribution plan sponsored by HCA. During the Class Period, Kellen invested her HCA account assets in one or more investment vehicles that held international investments, such as the Plan’s International Stock Fund. During the Class Period, the assets of the HCA 401(k) Plan and the HCA Retirement Plan were invested through the HCA Inc. Master Retirement Trust (“HCA Master Trust”). Kellen resides in Parker, Colorado.

38. During the Class Period, Plaintiff Hedy Anselman was a participant in the HCA 401(k) Plan, a defined contribution plan sponsored by HCA. Anselman has been employed as a registered nurse by Swedish Medical Center, in Englewood, Colorado for more than 24 years. Swedish Medical Center is owned and controlled by HCA-HealthONE, LLC and HealthOne of Denver, Inc., which are Colorado-based corporate entities affiliated with HCA. During the Class Period, Anselman invested her HCA account assets in one or more investment vehicles that held international holdings, including the Pre-Mix To-Go Fund. The assets of the HCA 401(k) Plan were invested through the HCA Master Trust. Anselman resides in Englewood, Colorado.

39. Plaintiff Timothy R. Garrett is a participant in the Baker Hughes Incorporated Thrift Plan (“Baker Hughes 401(k) Plan”), a defined contribution plan sponsored by Baker Hughes, Inc. Baker Hughes is a global oil drilling and processing servicing company based in Houston, Texas. Garrett has been employed by Baker Hughes for more than nine years. During the Class Period, Garrett invested his Baker Hughes 401(k) account assets in investment vehicles that held international investments,

including the Baker Hughes Bond Fund and the Baker Hughes International Equity Fund. Garrett resides in Claremore, Oklahoma.

40. Plaintiff Jonathan G. Axelrod is an attorney at Beins Axelrod, PC in Washington, D.C. He is one of the three trustees of the International Ladies Garment Workers Union Death Benefit Fund 2 (“ILGWU Death Benefit Fund”), an ERISA benefit plan. During the Class Period, the ILGWU Death Benefit Fund and its predecessor plans invested in investment vehicles that made international investments. Axelrod resides in Washington, D.C.

41. Plaintiff John A. Boardman serves as the Executive Secretary-Treasurer and the chief officer of Local 25 of UNITEHERE!, a labor organization based in Washington, D.C. He is one of the three trustees of the ILGWU Death Benefit Fund. During the Class Period, the ILGWU Death Benefit Fund and its predecessor plans invested in investment vehicles that made international investments. Boardman resides in Washington, D.C.

42. Plaintiff Warren J. Pepicelli serves as the Manager of the New England Joint Board of UNITEHERE! based in Boston, Massachusetts. He is a trustee of the ILGWU Death Benefit Fund. During the Class Period, the ILGWU Death Benefit Fund and its predecessors invested in investment vehicles that made international investments. Pepicelli resides in Marshfield, Massachusetts.

### **Defendants**

43. Bank of America: Defendant Bank of America Corporation is a Delaware corporation headquartered at 100 North Tryon Street, Charlotte, North Carolina 28255. Bank of America Corporation is a multinational banking and financial services corporation with its investment banking division located at the Bank of America Tower,

One Bryant Park, 1111 Avenue of the Americas, New York, New York 10036. Bank of America, N.A. is a federally-charted national banking association headquartered at 101 South Tyron Street, Charlotte, North Carolina 28255, and is an indirect, wholly owned subsidiary of Bank of America Corporation. It has a branch in London. Defendant Merrill Lynch, Pierce, Fenner & Smith Inc. is a wholly-owned subsidiary of Bank of America Corporation incorporated in Delaware with its principal place of business in New York, New York. Defendant Merrill Lynch Capital Services, Inc. is a Delaware corporation headquartered at 4 World Financial Center, New York, New York 10080 that provides broker dealer services and operates as a subsidiary of Bank of America Corporation. Bank of America Corporation, Bank of America, N.A., Merrill Lynch, Pierce, Fenner & Smith Inc. and Merrill Lynch Capital Services, Inc. are referred to collectively in this Complaint as "Bank of America."

44. Barclays: Defendant Barclays PLC and its subsidiary Defendant Barclays Bank PLC are British public limited companies headquartered at 1 Churchill Place, London E14 5H, England. Barclays PLC and Barclays Bank PLC and their U.S. subsidiaries are subject to regulation under numerous statutes, rules and regulations, including the International Banking Act of 1978, the Bank Holding Company Act of 1956 (BHC Act), as well as ERISA. Barclays Bank PLC has a New York branch that is licensed by the New York State Department of Financial Services with a registered address at 745 Seventh Avenue, New York, New York 10019 and a foreign representative office at One MetLife Plaza, 27-01 Queens Plaza North, Long Island City, New York 11101. Barclays Group US Inc. is a Delaware-based corporation with headquarters at 745 Seventh Avenue, New York, New York 10019. Defendant Barclays

Capital Inc. is a Connecticut corporation with headquarters at 745 Seventh Avenue, New York, New York 10019. It is a wholly owned U.S. subsidiary of Barclays Bank PLC that serves as the broker dealer for Barclays Group US Inc., and It engages in investment banking, wealth management, and investment management services. It has been registered with the CFTC as a Futures Commission Merchant since 1990, an approved exempt foreign firm since 1992, and a commodity pool operator and commodity trading advisor since 2009. Barclays Capital Inc. operates a single-dealer electronic trading platform called BARX. Defendants Barclays PLC, Barclays Bank PLC, Barclays Group US Inc., and Barclays Capital Inc. are referred to collectively in this Complaint as “Barclays.”

45. BNP Paribas: Defendant BNP Paribas Group is a French bank and financial services company headquartered in Paris, France, at 16 Boulevard des Italiens, Paris, France 75009. BNP Paribas Group is licensed by the New York State Department of Financial Services with a registered address at 787 Seventh Avenue, New York, New York 10019. BNP Paribas North America, Inc. is a Delaware corporation headquartered at 787 Seventh Avenue, New York, New York 10019. BNP Paribas North America, Inc. provides corporate, investment banking, and securities brokerage activities and is an affiliate of BNP Paribas Group. BNP Paribas Group and BNP Paribas North America, Inc. are referred to collectively in this Complaint as “BNP Paribas.”

46. Citigroup: Defendant Citigroup, Inc. is a Delaware corporation headquartered at 399 Park Ave, New York, New York 10022. Defendant Citibank, N.A. is a federally-chartered national banking association headquartered at 399 Park Avenue, New York, New York 10022. It is a wholly owned subsidiary of Defendant Citigroup,

Inc. and Defendant Citibank, N.A. are referred to collectively in this Complaint as “Citigroup.”

47. Credit Suisse: Defendant Credit Suisse Group AG is a Swiss holding company headquartered in Zurich, Switzerland. Defendant Credit Suisse AG is the Swiss banking subsidiary of Credit Suisse Group AG, located at Paradeplatz 8, Zürich 8070, Switzerland. Credit Suisse AG has a New York branch that is licensed by the New York State Department of Financial Services with a registered address at 11 Madison Avenue, New York, NY 10010-3698. Defendant Credit Suisse Securities (Europe) Limited, formerly known as Credit Suisse First Boston (Europe) Limited, is an indirect wholly owned subsidiary of Credit Suisse Group AG. It is regulated in the United Kingdom by the Financial Services Authority. It acts as a dealer in securities, derivatives, and foreign exchange on a principal and agency basis. Defendant Credit Suisse Securities (USA) LLC is a Delaware limited liability company headquartered at 11 Madison Avenue, New York, New York 10010, and is a wholly owned subsidiary of Credit Suisse Group AG. Credit Suisse Group AG offers FX Transaction services to institutional investor clients, including through its “AES FX” proprietary electronic trading platform. Credit Suisse Group AG, Credit Suisse AG, Credit Suisse AG New York Branch, Credit Suisse Securities (Europe) Limited, and Credit Suisse Securities (USA) LLC are referred to collectively in this Complaint as “Credit Suisse.”

48. Deutsche Bank: Defendant Deutsche Bank AG is a German financial services company headquartered in Frankfurt, Germany. Defendant Deutsche Bank AG, New York Branch is a wholesale branch of Deutsche Bank AG. The New York branch of Deutsche Bank AG is licensed by the New York State Department of Financial Services

with a registered address at 60 Wall Street, New York, New York 10005-2858. Deutsche Bank AG provides FX Transaction services to institutional investor clients through the use of “Autobahn,” its proprietary electronic FX trading system. FX Transactions for Deutsche Bank AG’s U.S.-based clients are largely conducted by the, New York branch, which holds most of the U.S. dollars serving as collateral for those FX Transactions. The London branch of Defendant Deutsche Bank AG also conducts FX Transactions, and is located at Winchester House, 1 Great Winchester Street, London, United Kingdom. Deutsche Bank AG is referred to in this Complaint as “Deutsche Bank.”

49. Goldman Sachs: Defendant The Goldman Sachs Group, Inc. is a Delaware corporation headquartered at 200 West Street, New York, New York 10282. The Goldman Sachs Group Inc. is a bank holding company and a financial holding company. Defendant Goldman, Sachs & Co. is a wholly owned subsidiary of The Goldman Sachs Group, Inc. and the principal operating subsidiary in the United States. Goldman, Sachs & Co. is located at 200 West Street, New York, New York 10282. The Goldman Sachs Group, Inc. and, Goldman, Sachs & Co. are referred to collectively in this Complaint as “Goldman Sachs.”

50. HSBC: Defendant HSBC Holdings PLC is a United Kingdom public limited company headquartered in London, England. Defendant HSBC Bank PLC is a United Kingdom public limited company headquartered in London, England. It is a wholly owned subsidiary of HSBC Holdings PLC. Defendant HSBC North America Holdings Inc. is a Delaware corporation headquartered in New York. It is a wholly owned subsidiary of HSBC Holdings PLC. Defendant HSBC North America Holdings, Inc. is the holding company for HSBC Holding PLC’s operations in the United States.

Defendant HSBC Bank USA, N.A. is a national banking association with its principal place of business in New York, New York. It is an indirect wholly owned subsidiary of HSBC North America Holdings Inc. HSBC Holdings PLC, HSBC Bank PLC, HSBC North America Holdings Inc., and HSBC Bank USA, N.A. are referred to collectively in this Complaint as “HSBC.”

51. JPMorgan: Defendant JPMorgan Chase & Co. is a Delaware corporation headquartered at 270 Park Avenue, New York, New York 10017. Defendant JPMorgan Chase Bank, N.A., is a federally-chartered national banking association headquartered at 270 Park Avenue, New York, New York 10017, and is a wholly owned subsidiary of Defendant JP Morgan Chase & Co. JPMorgan Chase & Co., JPMorgan Chase Bank, N.A. are referred to collectively in this Complaint as “JPMorgan.”

52. Morgan Stanley: Defendant Morgan Stanley is a global financial services firm that, through its subsidiaries and affiliates, provides products and services, including foreign exchange, to clients and customers, including corporations, governments, financial institutions, and employee benefits funds. Morgan Stanley is a financial holding company regulated by the Board of Governors of the Federal Reserve System under the Bank Holding Company Act of 1956, as amended. Morgan Stanley is a Delaware company headquartered at 1585 Broadway, New York, New York 10036. Defendant Morgan Stanley Capital Services, LLC is a Delaware company and an indirect wholly owned subsidiary of Morgan Stanley. Defendant Morgan Stanley & Co., LLC is a limited liability company organized and existing under the laws of Delaware with its principal place of business in New York, New York. Morgan Stanley & Co., LLC is a wholly-owned subsidiary of Morgan Stanley. Morgan Stanley, Morgan Stanley Capital Services

LLC, and Morgan Stanley & Co., LLC are referred to collectively in this Complaint as “Morgan Stanley.”

53. RBS: Defendant Royal Bank of Scotland Group PLC is a United Kingdom public limited company headquartered in Edinburgh, Scotland. Defendant Royal Bank of Scotland Group PLC is licensed by the New York State Department of Financial Services with a registered address at 340 Madison Avenue, New York, New York 10173. Defendant Royal Bank of Scotland PLC is a wholly-owned direct subsidiary of Royal Bank of Scotland Group PLC registered in Edinburgh, Scotland. Defendant RBS Securities, Inc., a Delaware corporation headquartered at 600 Washington Boulevard, Stamford, Connecticut 06901, is an indirect wholly-owned subsidiary of Defendant Royal Bank of Scotland PLC. Royal Bank of Scotland Group PLC, Royal Bank of Scotland PLC, and RBS Securities, Inc., are referred to collectively in this Complaint as “RBS.”

54. UBS: Defendant UBS AG is a Swiss company based in Basel and Zurich, Switzerland. Defendant UBS Securities LLC is a Delaware limited liability company headquartered at 677 Washington Boulevard, Stamford, Connecticut 06901. It is a wholly owned subsidiary of UBS AG. Defendant UBS Investment Bank is a global financial services firm headquartered in London, United Kingdom that operates as a subsidiary of UBS AG. Defendant UBS Investment Bank, Americas is based in New York and operates as a subsidiary of UBS Investment Bank. UBS AG, UBS Securities LLC, UBS Investment Bank, and UBS Investment Bank, Americas are referred to collectively in this Complaint as “UBS.”

55. “Defendant” or “Defendants” as used herein include, in addition to those named specifically above, all of the named Defendants’ predecessors, including those entities that merged with, or were acquired by, the named Defendants and each named Defendant’s wholly owned or controlled subsidiaries or affiliates that played a material role in the unlawful acts alleged in this Complaint.

56. When this Complaint refers to any act of any corporation, the allegation means that the corporation engaged in the act by or through its directors, officers, employees, or agents while they were actively engaged in the management, direction, control, or transaction of the corporation’s business or affairs.

57. Each of the Defendants named herein acted as the agent or joint-venturer on behalf of the other Defendants with respect to the acts, violations, and common course of conduct alleged herein.

58. Various other persons, firms, and corporations that are unknown and not named as Defendants participated as co-conspirators with Defendants and acted or made statements in furtherance of the conspiracy.

**DEFENDANTS’ UNLAWFUL CONDUCT MANIPULATED THE FX MARKETS  
AT THE EXPENSE OF ERISA EMPLOYEE BENEFIT PLANS AND THEIR  
PARTICIPANTS**

**A. The FX Market**

59. Parties buy and sell currencies in the FX market. It is the largest and most actively traded financial market in the world, and operates 24 hours a day throughout the

week. According to the most recent BIS Triennial Central Bank Survey,<sup>14</sup> global trading in FX averaged \$5.3 trillion per day in April 2013, up from \$4.0 trillion in April 2010.<sup>15</sup> U.S. trading in FX averaged \$1.263 trillion per day in April 2013, up from \$864 billion in April 2010.<sup>16</sup>

60. Although the FX market is typically thought of as one market, in fact it is two – an “interbank” market in which banks trade currencies with each other, and a parallel market in which banks interact with non-bank clients such as private U.S. pension funds. Trading in both markets is over-the-counter, meaning that it does not occur on a central exchange with records of all daily transactions and their prices. This complaint involves both markets.

61. Currencies are traded in pairs. In April 2013, the top three currency pairs accounted for over half of all FX market turnover globally: EUR|USD (24.1%), USD|JPY (18.3%), and GBP|USD (8.8%).<sup>17</sup> In April 2013, the U.S. dollar was on one side of 87% of all currency transactions globally<sup>18</sup> and on 89% of all FX Transactions in the United States.<sup>19</sup>

---

<sup>14</sup> The BIS Triennial Central Bank Survey describes itself as “the most comprehensive source of information on the size and structure of global foreign exchange (FX) and OTC derivatives markets.” Bank for International Settlements, Triennial Central Bank Survey, Foreign exchange turnover in April 2013: preliminary global results (available at <https://www.bis.org/publ/rpfx13fx.pdf>) [hereinafter BIS Triennial Bank Survey, Preliminary Results 2013] at 3. Central banks, including the Federal Reserve Bank of New York and other authorities in 53 jurisdictions, participate in the survey, collecting data from 1,300 banks and other financial institutions throughout the world. *Id.*

<sup>15</sup> BIS Triennial Bank Survey, Preliminary Results 2013 at 3.

<sup>16</sup> Fed Triennial Bank Survey 2013 at 1.

<sup>17</sup> BIS Triennial Bank Survey, Preliminary Results 2013 at 3.

<sup>18</sup> *Id.* at Table 2.

<sup>19</sup> Fed Triennial Bank Survey 2013 at 4.

62. Until the early 1990s, all FX trading was done over the telephone.

Typically, a customer would call a bank and ask for a quote on a particular currency pair, and then decide whether to buy or sell based on the quote. This is sometimes referred to as a “request for quote,” or RFQ.

63. By the early 2000s, a majority of FX trades were done on electronic trading platforms, or ECNs.<sup>20</sup> In 2013, 74% of spot FX Transactions and 60% of swap FX Transactions in the United States were conducted electronically.<sup>21</sup>

64. ECNs come in two forms – single-bank and multi-bank. Most major banks have their own proprietary, single-bank ECNs. Barclays’s proprietary platform is named BARX, and it is one of the most popular single-bank ECNs. Another is Deutsche Bank’s Autobahn trading platform.

65. As the name suggests, multi-bank ECNs are platforms on which a customer may transact with any number of dealers. Popular multi-bank ECNs include FAall, Currenex, FXConnect, Globalink, and eSpeed.

66. Trading works basically the same way on single-bank ECNs and multi-bank ECNs. In either case, the potential customer sees the bid and ask price at a given time. The only difference is that, on a single-bank platform, the customer sees only the bid/ask information from a single bank. On a multi-bank platform, the customer sees a “stack” of prices from various market participants. Customers may also submit requests

---

<sup>20</sup> Darius Wójcik, Duncan MacDonald-Korth, Simon X. Zhao, *The geography of foreign exchange trading: Currencies and international financial centres*, School of Geography and the Environment, University of Oxford, Working Papers in Employment, Work and Finance 14-06, 10 (September 25, 2014) (available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2501285](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2501285) (hereafter “Geography of Forex”).

<sup>21</sup> Fed Triennial Bank Survey 2013 at 7.

for quotes or streams over ECNs. Unlike the normal executable prices, which stream constantly, responses to requests for quotes are static. The prices provided in response to specific requests are valid only for a short period, and may differ from the streaming, executable prices.

67. Three types of currency trading account for approximately 95% of currency transactions in the FX market in the United States:<sup>22</sup>

Spot – An agreement to exchange sums of currency at an agreed-on exchange rate on a value date that is within two bank business days' time.

Outright Forward – An agreement to exchange sums of currency at an agreed-on exchange rate on a value date that will be in more than two bank business days' time. The exchange rate for a forward transaction is called the forward outright. Also known as a currency forward.

FX Swap – A spot transaction and an outright forward executed simultaneously, but in opposite directions.

68. The FX market revolves around spot transactions (“FX Spot Market”).

Defendants are counterparties in approximately 98% of the spot transactions in the United States.<sup>23</sup> Spot transactions can be in the interbank markets (*i.e.*, the wholesale market) or in the parallel market (*i.e.*, the retail market) in which banks transact with non-bank customers. In addition to accounting for approximately half of daily FX turnover in the United States, or roughly \$620 billion,<sup>24</sup> spot transactions affect other instruments that Defendants sell to their customers, such as outright forwards and FX swaps. FX spot transactions, outright forwards, and FX swaps are referred to collectively in this Complaint as “FX Transactions.”

---

<sup>22</sup> Fed Triennial Bank Survey 2013 at 3-4.

<sup>23</sup> Fed Triennial Bank Survey 2013 at 6.

<sup>24</sup> *Id.* at 3.

69. Both outright forwards and FX swaps are derived from the underlying spot price. Every time the spot price moves, outright forward and FX swap prices move. An outright forward is the spot price plus the interest differential or “cost of carry.” The cost of carry is determined mathematically from the overall cost involved when lending one currency and borrowing another during the period from the spot date until the forward date. Outright rates are quoted in swap points, also called forward points. The full outright forward rate is calculated by adding swap points (called a premium) or subtracting swap points (called a discount) from the spot rate. Similarly, an FX swap is determined by the spot price because it is a simultaneous spot transaction and a reverse outright forward – a spot-forward swap.

70. Though the FX spot market is an over-the-counter market, the actual settlement of daily FX Transactions is coordinated through payment systems operated by banks, central banks, and other organizations.<sup>25</sup> The majority of FX settlements are then processed daily through the CLS Bank International, a limited-purpose bank created in 2002 and regulated by the New York Federal Reserve. CLS Bank settles these FX trades daily by “netting” buys and sells among its participants, reducing actual payments required for the FX trades by 95%.<sup>26</sup>

71. Approximately 94% of FX trading is over the counter, or OTC.<sup>27</sup> If a customer wants to buy or sell a specific amount of a currency at a specific price in a spot transaction in the OTC market, the customer will ask the dealer for a “bid” and “ask” for

---

<sup>25</sup> David F. DeRosa, *Foreign Exchange Operations: Master Trading Agreements, Settlement and Collateral*, John Wiley & Sons, Inc. (2014) 189, 206-07.

<sup>26</sup> *Id.* at 203, 208.

<sup>27</sup> BIS Triennial Bank Survey, Preliminary Results 2013 at Table 1.

that quantity of a currency pair. The bid is the price at which the dealer is willing to buy currency. The ask is the price at which the dealer is willing to sell currency. The customer then buys, sells, or passes. The difference between the bid and ask is the “bid/ask spread.”

72. The wider the spread, the more money a dealer makes. Thus, dealers have an incentive to quote wider bid/ask spreads. Competition among dealers, however, should cause bid/ask spreads to narrow.

73. Dealers record and analyze their customers’ trading histories. As a result, dealers often can predict a customer’s trading patterns, even before the customer places an order. This is particularly sensitive information.

74. Salespeople and traders who work for dealers communicate regularly. Salespeople inform the traders of incoming potential orders, confirm bid and ask prices, and ultimately convey these orders, known as Directed FX, to the trading desk. Traders are aware of all potential and pending trades that flow through their desks.

## B. FX Fixing Rates and Uses

75. A customer can order a spot transaction for immediate execution, in which case the counterparty bank quotes the retail FX customer a price that is typically very close to the current wholesale interbank market price. Under ERISA, this is a “directed” FX Transaction (“Directed FX”).<sup>28</sup>

76. Bank customers also can order spot transactions to be settled at a fixing rate, which is the exchange rate for a currency pair, as calculated by various third party

---

<sup>28</sup> Directed FX Transactions occur when an independent pension plan fiduciary directs a bank or broker-dealer or its affiliate to purchase or sell a specific amount of currency at a specific exchange rate. 59 FR 8022, U.S. Department of Labor Prohibited Transaction Exemption 94-20, Section IV(f) (February 10, 1994).

firms at a specific time in the interbank market. Defendants guarantee their retail customers that they will settle such transactions at the fixing rate, usually with an agreed-upon markup.

77. However, customers often ask that their transactions be priced based on a daily fixing rate. A fixing rate is a published exchange rate in the interbank market at a specific point or over a short time interval. To place an order at a fixing rate, a customer instructs the dealer to buy or sell currency at the fixing rate or at a price set by the fixing rate, e.g., 5 basis points (5 one hundredths of a percent) more or less than the fixing rate. The dealer guarantees execution at the fixing rate. Under ERISA, an FX Transaction executed at a specific benchmark rate by agreement (“Benchmark FX”) is considered to be a “standing instruction” FX Transaction.<sup>29</sup>

78. The European Central Bank Rate (which is set each trading day at 2:15 p.m. (CET)) and the WM/Reuters Closing Spot Rates are the most important fixing rates in the FX Spot Market. WM/Reuters publishes its fixing rates for spot rates and forwards.<sup>30</sup>

79. The WM/Reuters Closing Spot Rates for Trade Currencies are calculated around 4:00 p.m. London time (11:00 a.m. New York time). WM/Reuters defines Trade

---

<sup>29</sup> A standing instruction FX Transaction is undertaken pursuant to a written authorization from an independent plan fiduciary to a bank or broker-dealer. 63 FR 63503, U.S. Department of Labor Prohibited Transaction Exemption 98-54, Section IV(b) (November 13, 1998). Standing instruction FX Transactions need not be priced based on a benchmark. The provisions of ERISA that deal with permissible Directed FX and Benchmark FX arrangements were amended in August 2006.

<sup>30</sup> The WM Company, WM/Reuters Spot & Forward Rates Methodology Guide (available at <http://bit.ly/1p9jnjo>) at 3 [hereinafter WM/Reuters Guide].

Currencies to include, among others, the major currencies traded against the U.S. dollar and the euro.<sup>31</sup>

80. During the Class Period, the WM/Reuters Closing Spot Rates for trade currencies were calculated using the median of a snapshot of bid and ask order rates and actual spot transactions in the 30 seconds before and the 30 seconds after 4:00 p.m. London time (11:00 a.m. in New York).<sup>32</sup> W/M Reuters trades and rates from Currenex, Reuters Dealing 3000, and EBS Closing Spot Rates.

81. The process for capturing the information used to calculate the WM/Reuters Closing Spot Rates is automated and anonymous. Because these rates are based on the median value of the transactions, the WM/Reuters Closing Spot Rates do not take the notional size of the quotes and transactions into account; in other words, all transactions are weighted equally, regardless of size.

82. The WM/Reuters forward rates are published as premiums or discounts to the WM/Reuters Closing Spot Rates.<sup>33</sup> Thus, manipulation of the WM/Reuters Closing Spot Rates necessarily affects the WM/Reuters forward rates. This is also true of other forward rates that are based on underlying spot fixing rates.

83. Pension funds, health funds, mutual funds, insurance companies, and hedge funds are major participants in the FX market; they are the segments of the FX market that have had the highest growth rate over the past several years. Many of these entities participate in the FX market not as a means of investment but rather to settle their purchases and sales of foreign securities, or to repatriate dividends, interest, and

---

<sup>31</sup> WM/Reuters Guide at 3.

<sup>32</sup> This time window was increased in 2015, *supra*.

<sup>33</sup> WM/Reuters Guide at 9.

redemptions that are paid in foreign currencies. These entities often prefer to execute FX Transactions at the WM/Reuters Closing Spot Rates because their performance is measured by how closely they track indexed benchmarks (such as those created by FTSE Group and MSCI Inc., which track stocks and bonds in multiple countries) or other portfolios that are pegged to WM/Reuters Closing Spot Rates. Executing FX trades at the WM/Reuters Closing Spot Rates removes tracking error.

84. Further, these entities use WM/Reuters Closing Spot Rates or other fixing rates for a range of purposes, including valuing, transferring, and rebalancing multi-currency asset portfolios.<sup>34</sup> WM/Reuters spot rates are customarily used to mark-to-market FX exposures.

85. The widespread use and acceptance of WM/Reuters spot rates as a pricing mechanism and as the primary benchmark for currency trading globally means that WM/Reuters spot rates are crucial to the operation of financial markets.

### C. WM/Reuters Closing Spot Rates Are Vulnerable to Manipulation

86. Defendants understood that the methodology used to calculate the WM/Reuters Closing Spot Rates was vulnerable to manipulation. For example, in a July 4, 2008 meeting of the Bank of England's Foreign Exchange Joint Standing Committee, Chief Dealers Sub-Group,<sup>35</sup> the WM Company gave a presentation on the median

---

<sup>34</sup> Financial Stability Board, "Foreign Exchange Benchmarks: Final Report," (September 30, 2014) (available at [http://www.financialstabilityboard.org/wp-content/uploads/r\\_140930.pdf](http://www.financialstabilityboard.org/wp-content/uploads/r_140930.pdf)) at 8.

<sup>35</sup> The Chief Dealers Sub-Group of the Bank of England's Foreign Exchange Joint Standing Committee was established in 2005 for the purpose of facilitating discussions between chief dealers at major dealer banks and Bank of England staff concerning developments in FX markets. The Chief Dealers Sub-Group consists of 11 chief traders active in the London FX market and top Bank of England officials. The Chief Dealers Sub-Group meets three to four times per year. Between 2005 and 2013, representatives from Defendants Barclays (2005-2012), Merrill Lynch (Bank of America) (2006-2007), HSBC (2007-2013), JPMorgan (2007-2009, 2011-2013), Morgan Stanley (2005-2008, 2010-2011), Goldman Sachs (2009-

calculation of the WM/Reuters rates to chief currency traders from RBS, HSBC, Deutsche Bank, Morgan Stanley, JPMorgan, and Citigroup. In response, the chief dealers in attendance admitted that the methodology was susceptible to manipulation:

It was noted that WM/Reuters do not use traded volumes data in the calculation of the spot rates. While they have access to Reuters volume data, the same is not the case for EBS data. The Chief Dealer group agreed that actual traded volumes is a key consideration in the calculation of accurate fixings and suggested that this would be a useful next step in the development of WM/Reuters' model. Furthermore it was suggested that using a snapshot of the market may be problematic, as it could be subject to manipulation. Perhaps WM could use a window of observations, and determine at what point to fix using volume data.<sup>36</sup>

87. As explained below, Defendants seized on the weakness in this methodology to manipulate the WM/Reuters Closing Spot Rates and other rates in the FX Spot Market.

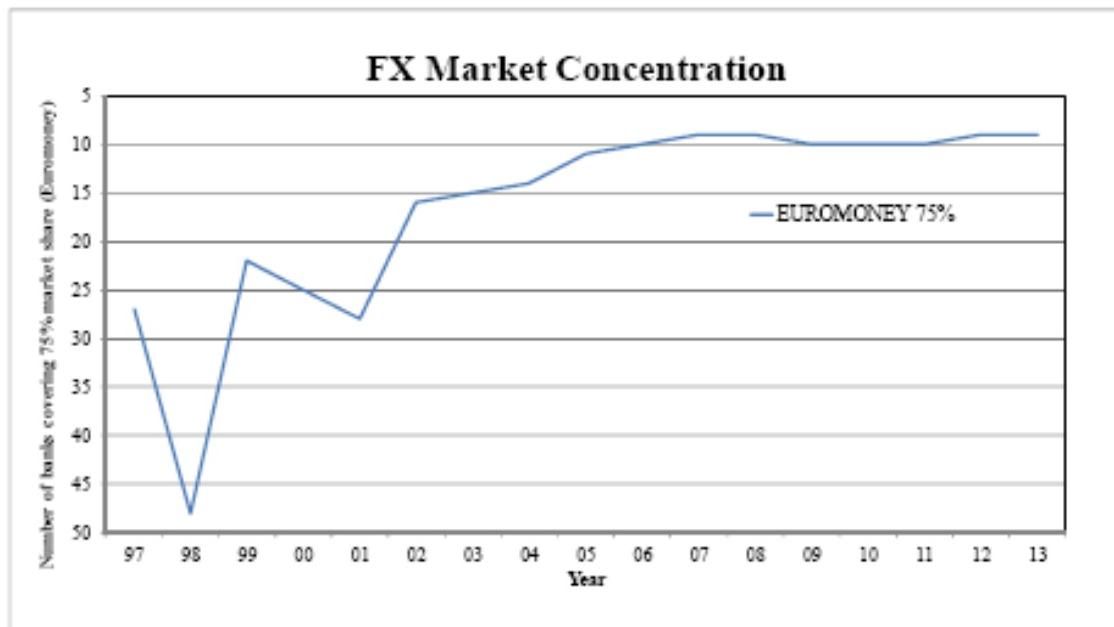
#### **D. Defendants Dominate the FX Market**

88. Beginning in the late 1990s, the FX market experienced a substantial increase in concentration, with the number of banks covering 75% market share declining:

---

2013), BNP Paribas (2009-2013), Deutsche Bank (2005-2012), RBS (2005-2013), UBS (2005-2013), Credit Suisse (2005-2008), and Citigroup (2005-2013) participated in the Chief Dealers Sub-Group. Foreign Exchange Joint Standing Committee Chief Dealers Sub-Group Meeting Minutes, 2005-2013 (available at <http://bit.ly/1eMBcAq> and <http://bit.ly/1kDSdSj>).

<sup>36</sup> Foreign Exchange Joint Standing Committee Chief Dealers Sub-Group, Draft Minutes of the 4 July 2008 Meeting at HSBC, 8 Canada Square, London E14 5HQ (available at <http://bit.ly/1eMBcAq>) at 71.



89. Defendants now dominate the FX market. According to 2012 and 2013 FX surveys by Euromoney, Defendants' individual and aggregate shares of the global FX market in 2012 and 2013 were:

Defendant	2012 Market Share (Rank)	2013 Market Share (Rank)
Deutsche Bank	14.57% (1)	15.18% (1)
Citigroup	12.26% (2)	14.90% (2)
Barclays	10.95% (3)	10.24% (3)
UBS	10.48% (4)	10.11% (4)
HSBC	6.72% (5)	6.93% (5)
JP Morgan	6.60 % (6)	6.07% (6)
RBS	5.86% (7)	5.62% (7)
Credit Suisse	4.68% (8)	3.70% (8)
Morgan Stanley	3.52% (9)	3.15% (9)
Goldman Sachs	3.12% (10)	2.75% (11)
BNP Paribas	2.63% (11)	2.52% (12)
Bank of America	2.41% (12)	3.08% (10)
<b>Defendants' Aggregate Market Share:</b>	<b>83.8%</b>	<b>84.25%</b>

90. Defendants dominate the U.S. spot market in particular. The Federal Reserve Bank of New York reported that, as of April 2013, the top ten banks accounted

for 98% of all spot volume in the FX market, up from 91% in April 2010. The five largest banks by volume accounted for 80% of spot transactions in the United States in April 2013.<sup>37</sup>

91. The rise of ECNs also contributed to the concentration of the FX market. To maintain their market position, Defendants made heavy investments in software and hardware that smaller banks could not afford.

92. The FX market has other high barriers to entry. For example, a large amount of capital is required to provide liquidity to customers. FX dealers must provide immediate liquidity to customers based on the assumption that inventory can be offloaded within the day.

93. As a practical matter, this concentration created a small, close-knit group of traders that controls the FX market. Because of market concentration and the financial crisis, Defendants have further reduced the size of their FX trading desks. Each bank now employs between eight to ten traders. Many have worked together in the past. Many live in the same neighborhoods in the Essex countryside just northeast of London's financial district. They belong to the same social clubs, golf together, dine together, and sit on many of the same charity boards. As Andre Spicer, a professor at the Cass Business School in London, said, “[t]he foreign exchange market has a very strong culture, in which practitioners feel more attached to each other than they do their banks. It is also dominated by an extremely small group of people, often with strong social ties formed by working with each other at some point in the past.”<sup>38</sup>

---

<sup>37</sup> Fed Triennial Bank Survey 2013 at 6.

<sup>38</sup> Liam Vaughan, Gavin Finch and Bob Ivry, *Secret Currency Traders' Club Devised Biggest Market's Rates*, BLOOMBERG (December 19, 2013) (available at <http://bloom.bg/1hA9KXj>).

**E. The FX Market Is Unregulated and Opaque**

94. Notwithstanding its size, importance, and concentration, the FX market is one of the world's least regulated financial markets, with most trading occurring away from exchanges. The United States does not have any framework of rules or agency that governs FX spot, outright forward, or FX swap transactions, and such transactions are exempt from the Dodd-Frank Wall Street Reform and Consumer Protection Act. Pub. L. 11-203, 124 Stat.1376 (2010). But ERISA does protect ERISA plans and plan participants in FX Transactions.

95. Similarly, there is no centralized exchange or institution that collects and posts real-time trade information, such as order flows and volume. While Defendants' proprietary ECNs allowed them to match buyers with sellers, Defendants' real-time order flow and volume data was not available to the market, as it would be on an exchange, where the entire market knows who is buying and selling at a given moment. Defendants' real-time order flow and volume data was highly sensitive and not commercially available for purchase. Even so, Defendants sometimes shared this information with each other to facilitate their manipulation of the FX markets.

**F. Defendants Shared Order Information and Trading Strategies In Order To Manipulate FX Pricing Against ERISA Retail Clients**

96. In the world of FX trading from 2003 to 2013, knowledge was profit. And the most profitable things to know included your own customers' order flows, the order flows of competing banks' customers, the trading tendencies of particular customers and their tolerance for paying "spread," the bid/ask spreads of competing banks, and how the

market was likely to move, especially around the times that benchmark rates were set.

This information was valuable because it allowed banks to develop their own highly profitable trading strategies, often at the expense of their customers.

97. For example, if a bank knew that a particularly large customer order (or the aggregate orders of its customers) would move the market, or affect a benchmark rate, the bank could use that information to trade ahead of, or “front run,” the order.

98. Traders “front run” on customer information when they receive customer orders that could move the market and then trade their own proprietary positions before executing their customers’ market-moving trades. Large client orders come, for example, from tracker funds,<sup>39</sup> which typically place orders as much as an hour before the WM/Reuters Closing Spot Rates are set. Such an order gives traders information about the direction in which the market will move, and traders from the largest dealer banks have admitted that they used the information to take positions that benefitted the banks to the detriment of customers.

99. According to a former trader, even one large transaction can move the market. The trader stated:

[I]f he received an order at 3:30 p.m. to sell 1 billion Euros (\$1.3 billion) in exchange for Swiss francs at the 4 p.m. fix, he would have two objectives: to sell his own euros at the highest price and also to move the rate lower so that at 4 p.m. he could buy the currency from his client at a lower price. He would profit from the difference between the reference rate and the higher price at which he sold his own euros. A move in the benchmark rate of 2 basis points [0.02 percent], would be worth 200,000 francs (\$216,000).<sup>40</sup>

---

<sup>39</sup> Tracker funds are funds whose returns track the performance of a particular index and are calculated in part based on the W/M Reuters Closing Spot Rates.

<sup>40</sup> Liam Vaughan, Gavin Finch and Ambereen Choudhury, *Traders Said to Rig Currency Rates to Profit Off Clients*, BLOOMBERG (June 11, 2013) (available at <http://bloom.bg/1qGQ3oy>); Liam Vaughan, Gavin Finch and Bob Ivry, *Secret Currency Traders' Club Devised Biggest Market's Rates*, BLOOMBERG (December 19, 2013) (available at <http://bloom.bg/1ibwUXj>).

100. Defendants could and did act alone to front run large orders (or a Defendant's entire book of orders) in violation of their fiduciary duty to ERISA Plans. But oftentimes, mere knowledge of the order flows of one's own customers gave insufficient insight into how the market would move, or where benchmark rates would be set. And trading around orders that may not move the market or affect benchmark rates is risky. Specifically, there is a risk, in the lingo of FX traders, that a trader from Bank "A" will get "run over" by banks that want prices to move in the opposite direction or that want benchmark rates to be set higher, or lower, than is desirable to Bank A.

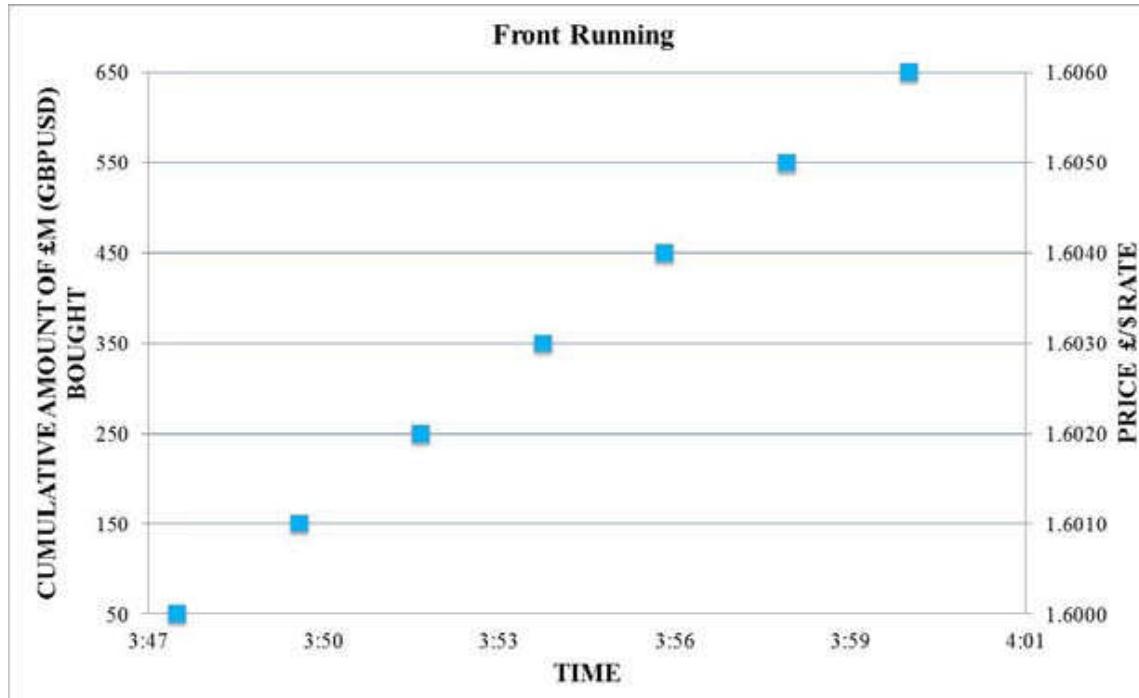
101. For instance, if the trader in the example above decided to sell 1 billion euros in exchange for Swiss francs, but another market participant traded the opposite direction and sold Swiss francs for 2 billion euros, the market price would move higher, not lower as the trader had anticipated based on his client's order. If, as a consequence, the market moved 2 basis points higher, the trader would lose 200,000 francs (\$216,000) on the transaction.

102. To minimize these risks, the traders at different banks often shared otherwise highly sensitive information, including information about their respective customers' order flows and how they planned to cover their customers' orders, so that they all could execute more profitable trading strategies at the expense of those customers. In addition, they often improperly colluded to front run "as a pack" and agreed "to a sequence for placing their own trades to their advantage."<sup>41</sup>

---

<sup>41</sup> Katie Martin and David Enrich, "Forex Probe Uncovers Collusion Attempts," WALL STREET JOURNAL (December 19, 2013) (available at <http://on.wsj.com/1h7x0j4>); Liam Vaughan, Gavin Finch and Ambereen Choudhury, "Traders Said to Rig Currency Rates to Profit Off Clients," BLOOMBERG (June 11, 2013) (available at <http://bloom.bg/1qGQ3oy>); Liam Vaughan, Gavin Finch and Bob Ivry,

103. The following example illustrates the trading mechanics of front running.



**3:45pm** A customer calls Defendant's FX desk to convert some of its U.S. dollars into £600m of sterling. The customer asks if the trade can be settled at the market benchmark price, the WM/Reuters Closing Spot Rate.

**3:48pm** The trader immediately buys £50m ("front running") for Defendant bank's own trading account at the market price of 1.6000 dollars to the pound. The trader knows he has a very large amount of pounds to buy over the next 12 minutes that will move the market higher.

**3:50pm** The £50m trade has caused the price of pounds to tick up to 1.6010, and the trader buys £100m at that price. He repeats this trade every two minutes, which drives the price higher each time.

**3:52pm** The trader buys £100m at an average rate of 1.6020, moving the price higher.

**3:54pm** The trader buys £100m at an average rate of 1.6030, moving the price higher.

**3:56pm** The trader buys £100m at an average rate of 1.6040, moving the price higher.

---

"Secret Currency Traders' Club Devised Biggest Market's Rates," BLOOMBERG (December 19, 2013) (available at <http://bloom.bg/1ibwUXj>).

**3:58pm** The trader buys £100m at an average rate of 1.6050, moving the price higher.

**4:00pm** The trader buys the final £100m at an average rate of 1.6060. At this point, he stops since he has now bought a total of £600 for his client by 4:00 p.m. at an average price of 1.6035. The trader fills the customer's order at the WM/Reuters Closing Spot Rate of 1.6060, thereby selling £600m to the client, leaving him with only a £50m exposure, which he sells into the market at 1.6060.

104. The trader filled his customer's order and sold the £50m he bought for the Defendant bank at the higher market rate. As a result, the customer received his £600m at a cost of \$963.6 million (£600m x 1.6060). But the Defendant bank only paid \$962.1 million (£600m x the average price of 1.6035), meaning it made \$1.5 million from the customer's transaction. In addition, the trader gained \$300,000 on the £50m "front running" side bet, and in total, made \$1.8 million for the Defendant bank in the 15 minutes before the 4:00 p.m. London fix.<sup>42</sup>

#### **G. Defendants Manipulated Benchmark Rates**

105. At least as early as January 1, 2003, defendants began colluding to manipulate FX Spot Market rates such as the WM/Reuters Closing Spot Rates.

106. Defendants' top-level traders used various means, including chat rooms, instant messages, and email, to facilitate their collusion. Defendants brazenly named their chat rooms "The Cartel," "The Bandits' Club," "The Mafia," and "One Team, One Dream." Entry into chat rooms was coveted because of the influence members exerted in the FX market.

---

<sup>42</sup> Simon Goodley, "The foreign exchange trader: 'the closer you get to 4pm, the less the risk,'" THE GUARDIAN (March 12, 2014) (available at <http://gu.com/p/3nftn/sbl>).

107. Defendants' top-level traders ran the chat rooms. For example, Richard Usher ran The Cartel while he was JPMorgan's chief currency dealer in London and head of spot trading for G-10 currencies from 2010-2013 and as a trader at RBS before then.

108. The Cartel's membership numbered a half-dozen or more of Defendants' top traders. Other members of The Cartel included:

- Rohan Ramchandani, Citigroup's head of spot trading in London;
- Matt Gardiner, Barclays's director of spot trading for EUR|USD from 2007 to 2011;
- Chris Ashton, former head of Barclays's voice spot trading globally; and
- Niall O'Riordan, UBS's co-global head of G-10 and emerging market spot trading.

Notably, Usher, Ramchandani, Gardiner, Ashton, and O'Riordan each have been suspended or fired from their respective institutions.

109. Defendants' FX traders participated in multiple chat rooms, which allowed them to simultaneously communicate with numerous other Defendants around the world.

110. Based solely on information learned to date, Defendants discussed at least the following currencies in chat rooms:

- Defendant Bank of America participated in chat rooms discussing the U.S. dollar (USD), euro (EUR), Japanese yen (JPY), Australian dollar (AUD), Swiss franc (CHF), and South African rand (ZAR).
- Defendant Barclays participated in chat rooms discussing the U.S. dollar (USD), euro (EUR), British pound (GBP), Japanese yen (JPY), Swiss franc (CHF), Australian dollar (AUD), Canadian dollar (CAD), Russian ruble (RUB), South African rand (ZAR), and Brazilian real (BRL).
- Defendant BNP Paribas participated in chat rooms discussing the U.S. dollar (USD), euro (EUR), Japanese yen (JPY), Polish zloty (PLN),

Russian ruble (RUB), Mexican peso (MXN), Israeli shekel (ILS), and Thai baht (THB).

- Defendant Citigroup participated in chat rooms discussing the U.S. dollar (USD), euro (EUR), British pound (GBP), Japanese yen (JPY), Swiss franc (CHF), Australian dollar (AUD), New Zealand dollar (NZD) Russian ruble (RUB), and South African rand (ZAR).
- Defendant Credit Suisse participated in chat rooms discussing the U.S. dollar (USD), euro (EUR), British pound (GBP), Australian dollar (AUD), Swiss franc (CHF), Czech koruna (CZK), Israeli shekel (ILS), Polish zloty (PLN), and South African rand (ZAR).
- Defendant Deutsche Bank participated in chat rooms discussing the U.S. dollar (USD), euro (EUR), the British pound (GBP), Japanese yen (JPY), Swiss franc (CHF), Australian dollar (AUD), New Zealand dollar (NZD), Canadian dollar (CAD), Russian ruble (RUB), South African rand (ZAR), Chinese yuan (CNY), Czech koruna (CZK), Hong Kong dollar (HKD), Hungarian forint (HUF), Polish zloty (PLN), Singapore dollar (SGD), Turkish lira (TRY), Indonesian rupiah (IDR), Indian rupee (INR), South Korean won (KRW), Malaysian ringgits (MYR), and Taiwan dollar (TWD).
- Defendant Goldman Sachs participated in chat rooms discussing the U.S. dollar (USD), euro (EUR), British pound (GBP), and Australian dollar (AUD).
- Defendant HSBC participated in chat rooms discussing the U.S. dollar (USD), euro (EUR), British pound (GBP), Swiss franc (CHF), Russian ruble (RUB), Mexican peso (MXN), and Thai baht (THB).
- Defendant JPMorgan participated in chat rooms discussing the U.S. dollar (USD), euro (EUR), British pound (GBP), Australian dollar (AUD), Swiss franc (CHF), and South African rand (ZAR).
- Defendant Morgan Stanley participated in chat rooms discussing the U.S. dollar (USD), euro (EUR), British pound (GBP), Japanese yen (JPY), Australian dollar (AUD), and New Zealand dollar (NZD).
- Defendant RBS participated in chat rooms discussing the U.S. dollar (USD), euro (EUR), British pound (GBP), Japanese yen (JPY), Swiss franc (CHF), Australian dollar (AUD), New Zealand dollar (NZD), South African rand (ZAR), and Brazilian real (BRL).
- Defendant UBS participated in chat rooms discussing the U.S. dollar (USD), euro (EUR), British pound (GBP), Japanese yen (JPY), Swiss

franc (CHF), Australian dollar (AUD), New Zealand dollar (NZD), Canadian dollar (CAD), Swedish krona (SEK), Norwegian krone (NOK) Russian ruble (RUB), South African rand (ZAR), Chinese yuan (CNY), Czech koruna (CZK), Hong Kong dollar (HKD), Hungarian forint (HUF), Polish zloty (PLN), Singapore dollar (SGD), Turkish lira (TRY), Indonesian rupiah (IDR), Indian rupee (INR), South Korean won (KRW), Malaysian ringgits (MYR), and Taiwan dollar (TWD)

111. Transcripts of The Cartel’s communications reveal that Defendants exchanged information on customer orders and agreed on strategies to manipulate the WM/Reuters Closing Spot Rates.<sup>43</sup> After members of The Cartel manipulated the WM/Reuters Closing Spot Rates, they often “would send written slaps on the back for a job well done.”<sup>44</sup>

112. The direct evidence of defendants’ collusive manipulation of benchmark rates is overwhelming. For example, Defendants formed “The Sterling Lads” to manipulate the exchange rate between British pounds sterling and U.S. dollars (GBP|USD or “cable”) – the world’s third most-traded currency pair.

113. A chat room transcript disclosed in a CFTC Consent Order shows how the banks manipulated FX Transactions related to “cable.” In this example, an HSBC trader in London and three traders at other banks manipulated the WM/Reuters Closing Spot Rate to their mutual advantage, and to the disadvantage of their clients. The HSBC trader revealed that he was a net seller (“lhs” or “left hand side”) of “cable”:<sup>45</sup>

---

<sup>43</sup> Liam Vaughan, Gavin Finch and Bob Ivry, *Secret Currency Traders’ Club Devised Biggest Market’s Rates*, BLOOMBERG (December 19, 2013) (available at <http://bloom.bg/1ibwUXj>).

<sup>44</sup> *Id.*

<sup>45</sup> Available at <http://www.cftc.gov/ucm/groups/public/@lrenforcementactions/documents/legalpleading/enfhscorder111114.pdf> (“2014 CTFC HSBC Consent Order”).

TIME	TRADER	MESSAGE
2:50:21 pm:	Bank W Trader 1:	early days but im a seller cable at fix [. . .]
3:11:43 pm:	Bank S Trader:	here also
3:24:50 pm:	Bank R Trader:	u got much to do in fix [Bank Trader W]
3:25:07 pm:	Bank W Trader 1:	im seller 130 cable that it [. . .]
3:28:02 pm:	Bank W Trader 1:	hopefulyl a fe wmore get same way and we canteam whack it
3:28:17 pm:	Bank R Trader:	ill do some digging [. . .]
3:36:13 pm:	Bank W Trader 1:	im seller 170 gbp atmofix
3:36:26 pm:	Bank R Trader:	we sellers of 40
3:38:26 pm:	HSBC Trader:	lhs in cable at the fix
3:38:29 pm:	HSBC Trader:	good amount

114. After the fixing time, the traders congratulated each other:<sup>46</sup>

TIME	TRADER	MESSAGE
4:00:35 p.m.	Bank R Trader:	well done gents
4:01:56 p.m.	Bank W Trader 1:	hooray nice team work
4:02:22 p.m.	HSBC Trader:	nice one mate

115. Separately, that same HSBC trader told a different trader in a different chat room just before the 4:00 p.m. fix that he should buy “cable” at the fix:<sup>47</sup>

TIME	TRADER	MESSAGE
3:25:19 p.m.	HSBC Trader:	get lumpy cable at the fix ok
3:25:32 p.m.	Bank W Trader 2:	ta mate
3:25:35 p.m.	Bank W Trader 2:	150 here
3:25:46 p.m.	HSBC Trader:	400 odd here
3:25:50 p.m.	HSBC Trader:	lets go

<sup>46</sup> 2014 CTFC HSBC Consent Order at 7, *infra*.

<sup>47</sup> *Id.*

3:26:00 p.m.	Bank W Trader 2:	yeah baby
3:26:03 p.m.	HSBC Trader:	[Bank W Trader 1] is too [ . . . ]
3:27:00 p.m.	Bank W Trader 2:	sry thats the [Bank W] flow
3:27:23 p.m.	Bank W Trader 2:	[Bank W Trader 1] gets 150
3:28:26 p.m.	HSBC Trader:	so its 150 all day wiht you guys? [ . . . ]
3:36:34 p.m.:	Bank W Trader 2:	170 here

116. After the fix, the HSBC trader and that other trader in the different chat room also congratulated each other:<sup>48</sup>

TIME	TRADER	MESSAGE
4:01:03 p.m.	Bank W Trader 2:	nice job mate
4:03:34 p.m.	HSBC Trader:	haha
4:03:40 p.m.	HSBC Trader:	i sold a lot up there
4:03:46 p.m.	HSBC Trader:	and over sold by 100
4:03:48 p.m.	HSBC Trader:	hahaha [ . . . ]
4:04:06 p.m.	Bank W Trader 2:	sweet nice job [ . . . ]
4:05:04 p.m.	Bank W Trader 2:	bravo

117. This HSBC FX trader simultaneously communicated with FX traders in five additional chat rooms about manipulating the 4:00 p.m. fix in “cable,” bringing the total private chat room participation in the collusion scheme for “cable” on that day to seven chat rooms by this HSBC trader.<sup>49</sup>

118. Another chat room conversation released by the NYS-DFS shows how a Barclays trader, partly by acting on his own, and partly by cooperating with traders at

---

<sup>48</sup> *Id.*

<sup>49</sup> *Id.* at 6-9.

other banks, manipulated an FX fixing rate. Here is NYS-DFS's description of the manipulation:

... on December 6, 2011, Barclays had client orders to buy a net EUR 52 million at the ECB EUR/USD fix rate. In addition, a Barclays trader agreed to buy an additional EUR 143.5 million at the fix rate from other banks, leaving him with EUR 195.5 million to sell at the fix. This additional "ammo" from other banks offered the possibility of driving down the price of the EUR/USD for the setting of the fix, which would allow Barclays to pay less for the euros it had committed to purchase at the fix price, while potentially selling for more. In addition, through the cooperation of traders at other banks, additional client orders of EUR 120 million, pending at other banks, were also cleared ahead of the fix, so as not to counteract the upcoming Barclays effort to drive the price lower. A trader at another bank wrote to the Barclays trader: "u selling still? . . . get a late 20 or so ive sold them" and stated that he was planning to "watch your magic haha."<sup>50</sup>

119. Here is a description of another chat room exchange – this time from a CFTC investigation – in which Barclays and UBS FX traders determined that they were all trading in the “same direction” and then shared how much they “scored” (*i.e.*, profited) based on this shared information:

In another chat, traders for Bank W and three other Banks exchanged positions leading into the WM/R 4 p.m. fix. The Bank Y trader said “it cant be a good day to be [right hand side].” Once the four traders determined they were all the same direction, the Bank W trader asked if “we gonna be able to get it to 05” to which the Bank Y trader responded “is that the troyal fkn we.” After the fixing window closed the Bank X trader said “nice call” and the chat room members gave their “scores” or profits from the fix. The chat room members each claimed they made between \$60,000 and \$220,000.<sup>51</sup>

120. Yet another example of benchmark manipulation uncovered by the CFTC's investigation involved traders from Barclays and JPMorgan. Leading up to the

---

<sup>50</sup> May 2015 NYS-DFS Barclays Consent Order at 8, *infra*.

<sup>51</sup> This description appears in a public report by the CFTC, *infra*. Commodity Futures Trading Commission, Office of Public Affairs, *Foreign Exchange Benchmark Case: In Re: Barclays Bank, PLC: Examples of Misconduct* (May 20, 2015) (“2015 CFTS Office Of Public Affairs Release”) (available at <http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/fxbarclaysmisconduct052015.pdf>).

4:00 p.m. fix, the trader from Bank W asked the trader from Bank Y whether he needed to buy euros in the market in the forthcoming fix.<sup>52</sup> The Bank Y trader responded that he had a net buy order for the fix, which he later confirmed as totaling EUR 105 million. At 3:44:04, the Bank Y trader offered to transfer that net buy order to the Bank W trader. The Bank W trader replied “maybe” and then stated that he had a net buy order for EUR 150 million. In the following chat room exchange, the Barclays and JPMorgan traders further strategized about manipulating the FX fixing rate and agreed to “double team” other traders to ensure their success:

TIME	TRADER	MESSAGE
3:46:53	Bank W Trader:	i'd prefer we join forces
3:46:56	Bank Y Trader:	Perfick
3:46:59		lets do this...
3:47:11	Bank Y Trader:	lets double team them
3:47:12	Bank W Trader:	YESssssssssss

121. Shortly after the fix was completed, the two traders congratulated each other:<sup>53</sup>

TIME	TRADER	MESSAGE
4:03:25	Bank W Trader:	sml rumour we haven't lost it
4:03:45	Bank Y Trader:	we
4:03:46		do
4:03:48		dollarrr

122. In another example, on December 4, 2012, a chat room group including Goldman Sachs, JPMorgan and Credit Suisse agreed to continue a conspiracy ■■■■■

■■■■■

■■■■■

---

<sup>52</sup> *Id.*

<sup>53</sup> *Id.*

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

TIME (EST)	TRADER	MESSAGE
10:52:50	Goldman Sachs	[REDACTED]
10:52:52	Goldman Sachs	[REDACTED]
10:53:54	JPMorgan	[REDACTED]
10:54:00	Credit Suisse	[REDACTED]
10:54:02	Credit Suisse	[REDACTED]
10:54:12	Goldman Sachs	[REDACTED]
10:54:21	JPMorgan	[REDACTED]
10:54:26	JPMorgan	[REDACTED]
10:55:16	Credit Suisse	[REDACTED]
10:55:19	Credit Suisse	[REDACTED]
10:56:01	Goldman Sachs	[REDACTED]
		[REDACTED]
10:56:14	JPMorgan	[REDACTED]
10:56:54	Goldman Sachs	[REDACTED]
		[REDACTED]
		[REDACTED]
10:57:10	JPMorgan	[REDACTED]
10:57:18	JPMorgan	[REDACTED]
10:57:19	Goldman Sachs	[REDACTED]
10:57:27	Goldman Sachs	[REDACTED]
10:57:34	JPMorgan	[REDACTED]
10:57:34	Goldman Sachs	[REDACTED]
10:57:39	JPMorgan	[REDACTED]
10:57:52	JPMorgan	[REDACTED]
10:58:14	Goldman Sachs	[REDACTED]
10:58:37	JPMorgan	[REDACTED]
10:58:46	JPMorgan	[REDACTED]
10:59:00	Goldman Sachs	[REDACTED]
10:59:10	Credit Suisse	[REDACTED]

123. As a direct result of these sorts of conversations, Defendants Barclays, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, JPMorgan, Morgan Stanley, RBS, and UBS now ban their traders from participating in multibank chat rooms.

124. There is little question that the Defendants understood how easy and profitable it was to manipulate benchmark rates.

125. Defendants encouraged their sales forces, through incentives such as increased “sales credits,” to execute transactions at fixing times such as the WM/Reuters Closing Spot Rates.

126. In recent testimony before the Treasury Committee of the House of Commons, the Bank of England governor, Dr. Mark Carney, elaborated on the benefits:

[T]he dealers want a quiet life. They want the ability to both promise to their clients that they will deliver the 4 pm fix and not have any risk in delivering that promise. Other market activity around the 4 pm fix by others, whether they are hedge funds, asset managers, corporate, whatever, will make that promise riskier.

That is the dealer’s job. That is the dealer’s job, in making that promise. What they have done, which is alleged and which is being investigated around the world, is that having developed a pattern of making those promises, they decided to cheat to make their life easier, to collude across the dealers . . . .

\* \* \*

Easier and richer sometimes goes together – it does not always go together – to buy happiness. That is what is being alleged, so you have a circumstance, and obviously, I was not present at the meeting and one reads into the minutes, where you have a circumstance where you have volatility because of the market functioning, and the dealers want to change that. What is being investigated is whether they tried to change it by colluding, sharing client information and doing above and beyond. That is fundamentally against the principles of fair markets. It is unacceptable and it has to be prosecuted to the full extent of the law . . . .<sup>54</sup>

---

<sup>54</sup> House of Commons, Treasury Department, Oral Evidence: The Foreign Exchange Market Review, HC 1147 (March 11, 2014) (available at <http://bit.ly/1h0YSB1>).

127. In May 2012 a senior trader at Defendant Barclays similarly confirmed that “[l]arge fixes are the key to making money as we have more chance of moving the market our way.”<sup>55</sup>

#### **H. Defendants Shared Confidential Customer Order Information to Further Their Manipulation**

128. Defendants have produced evidence to government investigators confirming that their traders “inappropriately share[d] market-sensitive information with rivals.”<sup>56</sup>

129. Defendants’ sharing of their confidential customer information violates the Federal Reserve Bank of New York’s “Guidelines for Foreign Exchange Trading Activities”, which have been in place for decades. Specifically, the Guidelines note:

Confidentiality and customer anonymity are essential to the operation of a professional foreign exchange market. Market participants and their customers expect that their interests and activity will be known only by the other party to the transaction . . . and an intermediary, if one is used.

*It is inappropriate to disclose, or to request others to disclose, proprietary information relating to a customer’s involvement in a transaction . . .*<sup>57</sup>

\* \* \*

Customer anonymity should not be circumvented with the use of slang or pseudonyms. If confidentiality is broken, management must act promptly to correct the conditions that allowed the event to occur.... *Staff should not pass on confidential and nonpublic information outside of their institution. Such information includes discussions with unrelated parties concerning their*

---

<sup>55</sup> May 2015 NYS-DFS Barclays Consent Order at 16, *infra*.

<sup>56</sup> Chiara Albanese, Katie Martin and David Enrich, *Banks Fix on Sales in Probe*, WALL STREET JOURNAL (November 19, 2013) (available at <http://on.wsj.com/P2iHS8>).

<sup>57</sup> Federal Reserve Bank of New York, Guidelines for Foreign Exchange Trading Activities, Foreign Exchange Committee (May 2008) (available at <http://bit.ly/1o5okiz>), at 11 (emphasis added).

***trades, their trading positions, or the firm's position.*** It is also inappropriate to disclose, or to request others to disclose, information relating to a counterparty's involvement in a transaction . . . .

***Trading room staff should take special precautions to avoid situations involving or appearing to involve trading on nonpublic information.***<sup>58</sup>

130. One of the main purposes of sharing information was to manipulate benchmark rates. Each Defendant aggregated its client orders to determine what its individual net position in a specific currency was going to be at the time for fixing the FX rate. Defendants then shared their aggregate order information with one another to determine their aggregate net position in a specific currency at the fix. By aggregating and sharing their confidential customer order flows, Defendants could be more certain of how a market was going to move at the fixing time.

131. According to traders, banks “would share details of orders with brokers and counterparts at banks through instant messages to align their strategies” and “improve their chances of getting the desired move in the benchmark.”<sup>59</sup>

132. A Bloomberg article from June 11, 2013 reported that current and former employees of some of the world’s largest banks had disclosed that banks were “front-running client orders and rigging WM/Reuters rates by pushing through trades before and during the 60-second windows when the benchmarks are set.”<sup>60</sup>

133. Evidence from government investigations corroborates that “[s]hortly before the fix . . . it was common for a group of senior currency traders to discuss with

---

<sup>58</sup> *Id.* at 26 (emphasis added).

<sup>59</sup> Liam Vaughan, Gavin Finch and Ambereen Choudhury, *Traders Said to Rig Currency Rates to Profit Off Clients*, BLOOMBERG (June 11, 2013) (available at <http://bloom.bg/1qGQ3oy>).

<sup>60</sup> *Id.*

their competitors the types and volume of trades they planned to place.”<sup>61</sup> A transcript that RBS provided to the United Kingdom Financial Conduct Authority (“UK-FCA”) revealed that JPMorgan’s Richard Usher wrote “messages to traders at other firms [that] included details of his trading positions.”<sup>62</sup> Defendants’ traders confirmed that “chatroom discussions between rival traders . . . allowed them to share information about pricing and order books.”<sup>63</sup>

134. Several Defendants admitted to the Bank of England that they shared their confidential customer information. On April 23, 2012, the Foreign Exchange Joint Standing Committee, Chief Dealers Sub-Group met at BNP Paribas’ London office. Rohan Ramchandani (Citigroup) attended, as did James Pearson (RBS), and Martin Mallet (Bank of England).<sup>64</sup> According to the notes of a senior trader present at the meeting, the traders told Bank of England officials that they shared information about customer orders before currency benchmarks were set.<sup>65</sup> The official meeting minutes concealed the admissions made at the meeting.<sup>66</sup>

---

<sup>61</sup> Katie Martin and David Enrich, *Forex Probe Uncovers Collusion Attempts, Global Investigation Has Reportedly Found London-Based Traders Worked Together in Trying to Manipulate Currencies*, WALL STREET JOURNAL (December 19, 2013) (available at <http://on.wsj.com/1o1Y0Wr>).

<sup>62</sup> Gavin Finch, Liam Vaughan, and Suzi Ring, *Ex-RBS Trader in U.K. Probe Said to Be JPMorgan’s Usher*, BLOOMBERG (Octoberober 14, 2013) (available at <http://bloom.bg/1ip3Yer>).

<sup>63</sup> Daniel Schafer, Alice Ross and Delphine Strauss, *Foreign exchange: The big fix*, FINANCIAL TIMES (November 12, 2013) (available at <http://on.ft.com/OIyUfl>).

<sup>64</sup> Foreign Exchange Joint Standing Committee Chief Dealers, Minutes of the 23 April 2012 12pm Meeting at BNP Paribas, 10 Harewood Avenue, London, NW1 6AA (available at <http://bit.ly/1kDSdSj>).

<sup>65</sup> Suzi Ring, Gavin Finch and Liam Vaughan, *BOE Staff Said to Have Condoned Currency Traders’ Conduct*, BLOOMBERG (February 7, 2014) (available at <http://bloom.bg/1d5bQmn>).

<sup>66</sup> Foreign Exchange Joint Standing Committee Chief Dealers, Minutes of the 23 April 2012 12pm Meeting at BNP Paribas, 10 Harewood Avenue, London, NW1 6AA (available at <http://bit.ly/1kDSdSj>).

135. In March 2014, the Bank of England suspended a staff member as it launched an internal investigation into whether employees knew about or condoned manipulation of the WM/Reuters Closing Spot Rates. The Bank of England's investigation included the search and review of 15,000 emails, 21,000 Bloomberg and Reuters chat room transcripts, and more than 40 hours of telephone records.

136. At least four chief traders who participated in the Bank of England's Chief Dealers Sub-Group have been suspended or terminated by their institutions. JPMorgan placed Richard Usher on leave in October 2013. Citigroup placed Rohan Ramchandani on leave in October 2013 and fired him approximately three months later. UBS suspended Niall O'Riordan in October 2013. Robert de Groot (of BNP Paribas and later of Citigroup) was suspended in March 2014. Usher, Ramchandani, and O'Riordan were also members of The Cartel chat room.

#### **I. Defendants Used Other Collusive Strategies to Amplify the Benefits of Sharing Information**

137. Former and current FX traders and persons familiar with the government and internal investigations have revealed that Defendants engaged in other improper behavior to amplify the impact of their collusive sharing of information – again, often for the purpose of manipulating benchmark rates. These tactics included “banging the close,” “painting the screen,” and “reaching deep into the book.” Defendants routinely discussed these tactics in chat rooms and instant messages.

138. “Banging the close” occurs when traders break up large customer orders into small trades and concentrate the trades in the moments before and during the 60-second fixing window in order to spike the published rates up or down. For instance, because the WM/Reuters Closing Spot Rates are based on the median of trades during the

calculation window and not weighted for the average notional amount of a transaction, the rates are susceptible to manipulation by banging the close. That is, 100 trades of \$1 will impact the WM/Reuters Closing Spot Rates more than a single trade of \$100.

139. Defendants also manipulated the WM/Reuters Closing Spot Rates and the FX Spot Market by “painting the screen.” Painting the screen occurred when Defendants placed phony orders with each other to create the illusion of trading activity in a given direction in order to move rates before the fixing window. Then, after the fix rates were calculated, Defendants reversed those trades.

140. Defendants also reached “deep into the book” or “crossed the spread” to execute FX Transactions that were several levels removed from the best available rate in order to influence fix rates to benefit the banks at the expense of their retail customers, including Plaintiffs and ERISA Plans.

#### **J. Defendants Manipulated the Bid/ask Spreads for Various Currencies**

141. Bid/ask spreads were another area rife with abuse.

142. In the FX market, the bid-ask spread represents the price at which a dealer is willing to buy or sell a given amount, referred to as a “volume,” of currency. Traders use the terms “spread” and “price” interchangeably.

143. Spreads are the most visible and immediate way in which banks compete for customers. By quoting narrower spreads than competitors, a dealer can gain customers and market share. A decision to widen spreads (or not tighten spreads), on the other hand, may cause a bank to lose customers and market share.

144. Customers understood that they had to pay a spread on FX Transactions. However, they wanted to know that the spreads they were paying were competitive.

145. Misleading sale practices around spreads were pervasive.

146. On May 20, 2015, the U.S. Department of Justice announced that it had reached plea agreements with Citigroup, Barclays, JPMorgan, RBS and UBS.<sup>67</sup> As these plea agreements make clear, these defendants not only acted collusively to rig FX markets but also acted independently to manipulate the FX bid/ask spreads that each provided to its own customers. And when questioned, they explicitly denied their misconduct. Citigroup admitted in its plea agreement how the scheme worked:

We added markup to price quotes using hand signals and/or other internal arrangements or communications. Specifically, when obtaining price quotes for bids or offers from the Firm, certain clients requested to be placed on open telephone lines, meaning the client could hear pricing not only from a salesperson, but also from the trader who would be executing the client's order. In certain instances, certain of our salespeople used hand signals to indicate to the trader to add markup to the price being quoted to the client on the open telephone line, so as to avoid informing the client listening on the phone of the markup and/or the amount of the markup. For example, prior to agreement between the client and the Firm to transact for the purchase of €100, a salesperson would, in certain instances, indicate with hand signals that the trader should add two pips of markup in providing a specific price to the client (e.g., a EURUSD rate of 1.1202, rather than 1.1200) in order to earn the Firm markup in connection with the prospective transaction.<sup>68</sup>

147. A Consent Order that Barclays entered into with NYS-DFS expanded more on the practice of adding undisclosed markups, the pervasiveness of the practice, and how profitable it was to Barclays.

---

<sup>67</sup> *U.S. v. Citicorp*, 3:15-cr-00078-SRU, Docket No. 8 (D. Conn. May 20, 2015) (“2015 Citigroup Plea Agreement”), Attachment B, Disclosure Notice; *U.S. v. Barclays PLC*, 3:15-cr-00077-SRU, Docket No. 6 (D. Conn. May 20, 2015) (“2015 Barclays Plea Agreement”), Attachment C, Disclosure Notice; *U.S. v. JPMorgan Chase & Co.*, 3:15-cr-00079-SRU, Docket No. 13 (D. Conn. May 20, 2015) (“2015 JPMorgan Plea Agreement”), Attachment B, Disclosure Notice; *U.S. v. The Royal Bank of Scotland PLC*, 3:15-cr-00080-SRU, Docket No. 9 (D. Conn. May 20, 2015) (“2015 RBBS Plea Agreement”), Attachment B, Disclosure Notice; *U.S. v. UBS AG*, 3:15-cr-00076-SRU, Docket No. 6 (D. Conn. May 20, 2015) (“2015 UBS Plea Agreement”), Exhibit 1, Factual Basis for Breach, at 6-7.

<sup>68</sup> 2015 Citigroup Plea Agreement, Attachment B, Disclosure Notice.

148. According to the Consent Order, Barclays's sales employees and traders sat close enough to talk to each other. When clients were on the phone, sometimes sale employees would often mute the line so they could talk to traders about markups. In other cases, sales employees and traders used the hand signals to which other Defendants have admitted. Here are some admissions by Barclays in the Consent Order:

44. At one point, certain members of the FX Sales team sat right next to the FX G10 traders and only a few rows away from the FX Emerging Markets traders, close enough to communicate verbally. At some point certain members of the FX Sales team were moved further away from the traders, but still close enough to communicate verbally. In this seating arrangement, certain FX Sales employees were able to communicate mark ups to traders verbally and, at times, through the use of hand signals.

45. The practice of certain FX Sales Employees when a client called for a price quote was to mute the telephone line when asking the trader for a price, which would allow Sales employees to add markup without the client's knowledge. However, some clients demanded to hear Sales employees' communications with traders and stay on an open line while the FX Sales employees communicated with the Traders.

46. In such circumstances, at least two Barclays FX Sales employees used hand signals to ask traders to add hard mark up without the client's knowledge. For example, one finger held sideways would indicate a one-pip markup, while two fingers held sideways would indicate a two-pip mark up.<sup>69</sup>

149. Many times, Barclays also gave its FX clients a worse rate than what was available in the market at a particular time, even if the trader was able to execute the FX order at a better price, and kept the price difference.<sup>70</sup> Similarly, Barclays often waited to fill a client's full FX order, until the market had moved in Barclays' favor, which often made transactions more expensive for the FX client but more profitable for Barclays.<sup>71</sup>

---

<sup>69</sup> May 2015 NYS-DFS Barclays Consent Order at 15.

<sup>70</sup> *Id.* at 15.

<sup>71</sup> *Id.* at 16.

150. Like Barclays, UBS admitted in its plea agreement with the DOJ that its salespeople and traders “used hand signals during certain customers’ ‘open line’ calls in order to conceal from customers that they were being marked up.”<sup>72</sup>

151. And when UBS salespeople and traders knew that an “open line” request from a customer was imminent, they planned in advance how to respond. The UBS Plea Agreement gives an example of this sort of planning between a UBS salesperson and a trader during a chat on July 19, 2013: “so the game plan is: i will ask for the price over the hoot, and i will leave the phone line open for the customer to hear the hoot. so we (you and i and [a UBS colleague] need to coordinate on pricing.”<sup>73</sup>

152. For all these defendants, the key to the strategy was to extract an above-market markup, but without tipping off the client. For example, Barclays’s “FX Sales employees would determine the appropriate markup by calculating the most advantageous rate for Barclays that did not cause the client to question whether executing the transaction with the Bank was a good idea, based on the relationship with the client, recent pricing history, client expectations and other factors.”<sup>74</sup>

153. As a senior Barclays official admitted in a November 5, 2010 chat, the goal was to give clients “the worst price i [sic] can put on this where the customers decision to trade with me or give me future business doesn’t change...if you aint cheating you aint trying [sic].”<sup>75</sup>

---

<sup>72</sup> 2015 UBS Plea Agreement, Exhibit 1, Factual Basis for Breach, at 6-7.

<sup>73</sup> *Id.* at 6. The “hoot” refers to an internal system whereby salespersons and traders could communicate over a speaker.

<sup>74</sup> May 2015 NYS-DFS Barclays Consent Order at 13.

<sup>75</sup> *Id.* at 14

154. As this chat shows, the abuse of hard markups was more pronounced for less sophisticated and more trusting clients. Those clients inevitably entered into FX Transactions with Barclays that were less favorable than the terms generally available in comparable arm's length foreign exchange transactions between unrelated persons.

155. The profits that Barclays and other banks earned on hard markups were no small matter. Rather, they were a key revenue source for Barclays and generating markups was a high priority for sales managers. Even after Barclays eliminated specific targets for markups, most Barclays employees believed that they remained a considerable factor in their compensation and almost all FX Sales employees engaged in “marking-up, request-for-quotation, and at-best orders,” whenever possible.<sup>76</sup>

156. Abuse of hard markups was not limited to market orders (*i.e.*, orders for immediate execution). Similar abuses occurred on limit and stop FX orders (*i.e.*, order for which transactions were conditioned on an exchange rate crossing a particular threshold). Here are Citigroup's admission about how it abused markups on these types of orders:

We have, without informing clients, worked limit orders at levels (*i.e.*, prices) better than the limit order price so that we would earn a spread or markup in connection with our execution of such orders. This practice could have impacted clients in the following ways: (1) clients' limit orders would be filled at a time later than when the Firm could have obtained currency in the market at the limit orders' prices, and (2) clients' limit orders would not be filled at all, even though the Firm had or could have obtained currency in the market at the limit orders' prices. For example, if we accepted an order to purchase €100 at a limit of 1.1200 EURUSD, we might choose to try to purchase the currency at a EURUSD rate of 1.1199 or better so that, when we sought in turn to fill the client's order at the order price (*i.e.*, 1.1200), we would make a spread or markup of 1 pip or better on the transaction. If the Firm were unable to obtain the currency at the 1.1199 price, the clients' order may not be filled as a result of our choice to make this spread or markup.

---

<sup>76</sup> *Id.*

We made decisions not to fill clients' limit orders at all, or to fill them only in part, in order to profit from a spread or markup in connection with our execution of such orders. For example, if we accepted a limit order to purchase €100 at a EURUSD rate of 1.1200, we would in certain instances only partially fill the order (e.g., €70) even when we had obtained (or might have been able to obtain) the full €100 at a EURUSD rate of 1.1200 or better in the marketplace. We did so because of other anticipated client demand, liquidity, a decision by the Firm to keep inventory at a more advantageous price to the Firm, or for other reasons. In doing so, we did not inform our clients as to our reasons for not filling the entirety of their orders.<sup>77</sup>

157. The plea agreements between the DOJ and Barclays, RBS, JPMorgan, and UBS contain similar admissions about how those banks abused customers on stop and limit orders.<sup>78</sup>

158. As the furtive hand signals and advance planning suggest, Defendants were far from candid about their dubious sales practices. Barclays did not reveal the markups to their clients, and at least twice, Barclays FX sales employees affirmatively lied to a client about whether it had added a markup.

159. UBS likewise "misrepresented to UBS customers that no sales markup was being added by UBS" when, in fact, UBS had added markups.<sup>79</sup> For example, in an electronic chat on May 3, 2013, a UBS salesperson misleadingly assured a customer that "ALL of your business today we have filled completely flat and on 1 clips of gbp we took pip loss – we have not made any money out of each individual clip whatsoever . . . I can assure you that no hard markup is taken on yr business."<sup>80</sup>

---

<sup>77</sup> 2015 Citigroup Plea Agreement, Attachment B, Disclosure Notice.

<sup>78</sup> 2015 Barclays Plea Agreement, Attachment C. Disclosure Notice; 2015 JPMorgan Plea Agreement, Attachment B, Disclosure Notice; 2015 RBS Plea Agreement, Attachment B, Disclosure Notice; and 2015 UBS Plea Agreement, Exhibit 1, Factual Basis for Breach at 7.

<sup>79</sup> UBS Plea Agreement, Exhibit 1, Factual Basis for Breach at 5.

<sup>80</sup> *Id.*

160. In addition to acting independently, at least as early as January 1, 2003, Defendants began conspiring to collusively fix the bid/ask spreads for various currency pairs. In thousands of communications, traders from more than 30 banks coordinated and exchanged information about spreads, with the explicit understanding that they would artificially adjust spreads based on information from other traders in the group. This conduct affected dozens of currency pairs, including the seven pairs with the highest market volume. By agreeing on spreads that were wider than the spreads that would have prevailed in a competitive market, the dealers were able to make more money on each transaction without fear of losing market share. And because spreads were wider than they would have been absent collusion, Defendants' customers, including Plaintiffs, paid supra-competitive prices for their FX Transactions.

161. Here again, chat room transcripts explicitly confirm the conduct. For example, in one chat room exchange shown below, traders from UBS and Deutsche Bank colluded on spreads quoted to customers in spread matrices. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

TIME (UTC)	TRADER	MESSAGE
09:42:52	UBS	[REDACTED]
09:43:03	Deutsche Bank	[REDACTED]
09:43:07	UBS	[REDACTED]
09:43:09	UBS	[REDACTED]
09:43:09	Deutsche Bank	[REDACTED]

09:43:23	UBS	[REDACTED]	
09:44:50	Deutsche Bank	[REDACTED]	
09:44:56	Deutsche Bank	[REDACTED]	
09:45:09	UBS	[REDACTED]	
09:45:13	UBS	[REDACTED]	
09:45:21	Deutsche Bank	[REDACTED]	

162. In another exchange in a chat room called the “Sterling Lads,” traders from Credit Suisse and RBS coordinated the pricing spread for EUR/GBP (Euro and Great Britain Pound). [REDACTED]

TIME (UTC)	TRADER	MESSAGE
10:46:55	Credit Suisse	[REDACTED]
10:47:31	RBS	[REDACTED]
10:47:42	RBS	[REDACTED]
10:48:01	Credit Suisse	[REDACTED]
10:48:07	RBS	[REDACTED]
10:48:23	RBS	[REDACTED]
10:48:35	Credit Suisse	[REDACTED]

163. Below is a transcript from a Bloomberg chat room that included traders from Deutsche Bank, BNP Paribas, and Bank of America, as they coordinated on a similar strategy to trigger client stop-loss orders.

TIME (EST)	TRADER	MESSAGE
08:21:04	BNP	[REDACTED]
08:23:01	Deutsche Bank	[REDACTED]
08:23:46	BNP Paribas	[REDACTED]
08:23:54	BNP Paribas	[REDACTED]
08:24:00	Deutsche Bank	[REDACTED]
08:24:01	BNP Paribas	[REDACTED]
08:24:07	BNP Paribas	[REDACTED]
08:24:09	Deutsche Bank	[REDACTED]
08:24:58	BNP	[REDACTED]
08:25:00	BNP Paribas	[REDACTED]
08:25:08	BNP	[REDACTED]
08:25:19	BNP	[REDACTED]

08:25:28	Deutsche Bank	[REDACTED]
08:25:35	BNP	[REDACTED]
08:25:36	BNP Paribas	[REDACTED]
18:45:46	Bank of America	[REDACTED]
18:46:48	Deutsche Bank	[REDACTED]
18:46:57	Deutsche Bank	[REDACTED]
18:48:20	Bank of America	[REDACTED]
18:48:29	Bank of America	[REDACTED]
18:48:56	Deutsche Bank	[REDACTED]

164. Below is a chat room exchange in which traders from JPMorgan, Merrill Lynch, and Morgan Stanley discussed FX spreads for “kiwi,” (i.e. the NZD/USD (New Zealand Dollar/U.S. Dollar) currency pair). [REDACTED]  
[REDACTED]  
[REDACTED]

TIME (UTC)	TRADER	MESSAGE
02:04:13	Morgan Stanley	[REDACTED]
02:04:30	Morgan Stanley	[REDACTED]
02:06:39	Morgan Stanley	[REDACTED]
02:07:14	JPMorgan	[REDACTED]
02:07:22	JPMorgan	[REDACTED]
02:07:24	JPMorgan	[REDACTED]
02:07:29	Morgan Stanley	[REDACTED]
02:07:40	Morgan Stanley	[REDACTED]
02:07:44	JPMorgan	[REDACTED]
02:07:47	JPMorgan	[REDACTED]
02:07:47	Merrill Lynch	[REDACTED]
02:07:50	JPMorgan	[REDACTED]
02:07:56	Merrill Lynch	[REDACTED]
02:07:58	Merrill Lynch	[REDACTED]

02:08:03	Merrill Lynch	[REDACTED]	
02:08:07	Merrill Lynch	[REDACTED]	
02:08:08	Merrill Lynch	[REDACTED]	
02:08:15	Morgan Stanley	[REDACTED]	
02:08:18	Merrill Lynch	[REDACTED]	
02:08:22	Morgan Stanley	[REDACTED]	
02:08:32	Merrill Lynch	[REDACTED]	
02:08:36	Morgan Stanley	[REDACTED]	

165. In the chat room transcript below, traders from Citigroup and Deutsche Bank shared client information to assist in manipulating the spread for the EUR/AUD (Euro/Australian Dollar) currency pair. [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

TIME (UTC)	TRADER	MESSAGE
17:31:14	Citigroup	[REDACTED]
17:34:37	Deutsche Bank	[REDACTED]
17:34:50	Deutsche Bank	[REDACTED]
17:34:57	Deutsche Bank	[REDACTED]
17:35:10	Deutsche Bank	[REDACTED]
17:35:18	Citigroup	[REDACTED]

166. Defendants were well aware that their conduct was unlawful, and were mindful not to discuss it too openly, as this chat uncovered by the NYS-DFS investigation makes clear:

Indeed, on one occasion, a Barclays FX trader explicitly discussed with a JP Morgan trader coordinating the prices offered for USD/South African Rand to a particular customer, stating, in a November 4, 2010 chat, “if you win this we should coordinate you can show a real low one and will still mark it little lower haha.” After the JP Morgan trader suggested that they “prolly shudnt put this on

permachat,” the Barclays trader responded “if this is the chat the puts me over the edge than o well. much worse out there.”<sup>81</sup>

## K. Manipulation of Electronic Trading Platforms

167. With the advent of electronic FX Transactions, “algorithmic” trading emerged, whereby computer software generates FX orders. A specific type of algorithmic FX trading is known as “high frequency trading,” which takes advantage of millisecond-short rate differences between trading platforms. High frequency FX trading currently makes up an estimated 20% of all global forex trading.<sup>82</sup>

168. One strategy of high speed traders has been to exploit latencies in the flow of information by placing FX orders based on information that Barclays and other market makers had not yet incorporated into the prices they offered on ECNs. These “latencies” usually amounted to mere milliseconds. “Latency arbitrage,” as it is called, is viewed as predatory by many market makers.

169. Nominally to protect themselves against this sort of trading, many banks, including Barclays, designed so-called “last look” systems that imposed hold periods

---

<sup>81</sup> May 2015 NYS-DFS Barclays Consent Order at 11, *infra*. See also the 2015 Consent Orders entered by six Defendant entities with the U.S. Federal Reserve Board of Governors, *infra*, finding collusive agreements to “influence [FX] market prices generally,” indicating participation in scheme: 2015 USBOG-BOA Consent Order at 3 (available at <http://www.federalreserve.gov/newsevents/press/enforcement/enf20150520a1.pdf>); 2015 USBOG-Barclays Consent Order at 4 (available at <http://www.federalreserve.gov/newsevents/press/enforcement/enf20150520a3.pdf>); 2015 USBOG-Citigroup Consent Order at 4 (available at <http://www.federalreserve.gov/newsevents/press/enforcement/enf20150520a5.pdf>); 2015 USBOG-JPMorgan Consent Order at 4 (available at <http://www.federalreserve.gov/newsevents/press/enforcement/enf20150520a2.pdf>); 2015 USBOG-RBS Consent Order at 4 (available at <http://www.federalreserve.gov/newsevents/press/enforcement/enf20150520a4.pdf>); and 2015 USBOG-UBS Consent Order at 4 (available at <http://www.federalreserve.gov/newsevents/press/enforcement/enf20150520a6.pdf>).

<sup>82</sup> Geography of Forex at 10.

between the receipt of customer orders over ECNs and their acceptance and execution of those orders. Before accepting and executing an order, the bank would compare the price at the beginning of the hold period to the price at the end of the hold period. If the price moved beyond a predetermined threshold in favor of the customer, the bank would reject the trade.

170. On July 11, 2014, an article in FX Week revealed that a senior electronic trader at a major London-based bank had found “compelling evidence” that four top banks had been abusing their last look systems.<sup>83</sup> The trader created a chart that compared the FX Transactions of the top 12 FX providers and found that four banks had significantly longer response times and lower order fill rates than the other banks, even though there should have been “very minimal differences in latency between the top providers.”<sup>84</sup>

171. By December 10, 2014 the NYS-DFS had reportedly found evidence that Defendants Barclays and Deutsche Bank “may have used algorithms on their trading platforms to manipulate foreign-exchange rates.”<sup>85</sup> By the following spring, there were reports that the DOJ and SEC also were investigating Barclays.<sup>86</sup>

---

<sup>83</sup> Michael Watt, *FX Focus – Look Back in Anger*, FX WEEK (July 11, 2014) (available at <http://www.fxweek.com/fx-week/analysis/2354192/fx-focus-look-back-in-anger> (subscription only)).

<sup>84</sup> *Id.*

<sup>85</sup> Greg Farrell, *Lawsky Said to Probe Barclays, Deutsche Bank FX Algorithm*, BLOOMBERG BUSINESS (December 10, 2014) (available at <http://www.bloomberg.com/news/articles/2014-12-10/ny-regulator-said-to-probe-deutsche-bank-barclays-fx-algorithms#media-1>).

<sup>86</sup> Greg Farrell, *Barclays ‘Last Look’ at Currency Trades Faces Scrutiny* (March 3, 2015) BLOOMBERG BUSINESS (available at <http://www.bloomberg.com/news/articles/2015-03-03/barclays-last-look-at-currency-trades-said-to-face-u-s-review>).

172. On November 18, 2015, Barclays admitted in a consent agreement with NYS-DFS that, from at least 2009 through 2014, the bank engaged in such improper practices involving the imposition of a “last look” on orders over its proprietary BARX ECN.<sup>87</sup>

173. Specifically, Barclays admitted that it had not used its last look system solely to screen out toxic order flow from high frequency traders but rather had applied it “broadly and indiscriminately” against its retail customers:

Barclays would compare the BARX price of the customer’s order at the start of the hold time against the BARX price at the end of the hold time; where the price at the end of the hold time had moved against Barclays (and in favor of the client) beyond the threshold set by Barclays in the tens and hundreds of milliseconds following the order, Barclays would reject the trade.

...

Thus, instead of employing Last Look as a purely defensive measure, Barclays instead used it as a general filter to reject customer orders that Barclays predicted, based on price movements during the hold period, would be unprofitable to the Bank.<sup>88</sup>

174. When a BARX user’s FX order was rejected, the customer would simply receive a notice that the order had been “Not Acknowledged,” or “NACK,” *i.e.* the order was not settled. These “NACK’d” orders had to be filled later because the retail customers expected the currency exchanges to occur. These subsequent FX Transactions often were at worse rates for the BARX users than the rates that should have applied to NACK’d orders. In effect, Barclays shifted the financial risk of some of its FX market making onto its retail customers.

---

<sup>87</sup> November 17, 2015 Consent Order, New York State Department of Financial Services and Barclays, *infra* (available at <http://www.dfs.ny.gov/about/ea/ea151117.pdf>).

<sup>88</sup> *Id.* at 3-4.

175. Barclays admitted that it applied similar protocols to “stop loss” and “stop limit” order FX Transactions.<sup>89</sup>

176. These admissions were significant in part because of BARX’s popularity. Roughly 80 percent of Barclays’s FX Transactions are now done over BARX.<sup>90</sup> In 2013, an estimated \$434 billion in FX Transactions were done daily over BARX.

177. Given the heavy of BARX by Barclays FX retail customers, it is virtually certain that Plaintiffs and ERISA Plans for whom Barclays conducted FX Transactions were injured by Barclays’s abuse of its last look system.<sup>91</sup>

178. Barclays hid its manipulation of FX Transactions on BARX from its customers, including Plaintiffs and members of the putative ERISA class. For example, Barclays admits that:

- On October 10, 2008, a New York Barclays Client Services employee announced the release of Last Look, emphasizing that it “gives traders the ability to configure a profit check.” The employee continued, “GUI clients will get a pop up for any of the[] rejects stating ‘trade rejected due to latency.’ FIX clients will get a FIX reject message. IF any client does call up about a rejected trade . . . it is important that you state in any communication ‘THE TRADE WAS REJECTED BECAUSE OF LATENCY.’ . . . DO NOT talk about P&L on trades.”
- On December 15, 2010, a Barclays client wrote, “[w]e have noticed that there were over 300 rejected orders with you today and the reason is ‘NACK’, could you pls have a look at them and advise what’s causing it?” After failing to receive a substantive response, the client followed up two days later, writing, “[w]e have not heard anything back with regards to the rejections. And this has become quite a serious matter. . . . We kept receiving top of the book rates from you and hitting your rate, but we got rejected by you 9 times out of 10 where we could have been well filled by other liquidity providers who have been providing competitive rates. . . . Could someone from your

---

<sup>89</sup> November 2015 NYS-DFS Barclays Consent Order, *infra*, at 6.

<sup>90</sup> *Id.* at 3.

<sup>91</sup> See the Appendices for examples of FX Transactions conducted for the Plaintiffs by Barclays during the Class Period.

side shed some lights on the rejections? Whether they are due to technical difficulties or business decisions?" There is no evidence that Barclays ever responded to these queries.

- On September 28, 2011, after several days had passed since a Barclays client had asked whether a trade rejection was due to Barclays's "price engine experienc[ing] delays or is it the result of an extreme market event/movement," Barclays staff directed a Sales employee, "because the client didn't chase us for an answer on the below last look rejection since Monday we have decided to park it for now and in case the client comes back, [another Barclays employee] will explain that the rejection was due to the market [sic] large volatility."
- On February 25, 2013, after inadvertently providing a Barclays client with the rejection message "AntEconomic failed by failing check," a Barclays Sales employee directed that "We should revert to naming ALL REJECTS the same NACK urgently . . . Clients are gonna come asking."
- On August 27, 2013, a support employee of an ECN noted "Barclays is frequently rejecting executions on the last available quote or sending rejection messages without a clear reason." In the same email chain, Barclays employees suggested explaining to the ECN "what last look is."
- On October 10, 2013, after a Barclays client questioned the reason for an "unusual amount of rejected orders" caused by Last Look, a BARX support employee familiar with Last Look wrote to the relevant Sales employee, "Would you like to go back to [the client] and tactfully explain? [BARX Support] cannot confirm or deny the existence of last look."
- On September 4, 2014, when a Barclays Sales employee emailed a BARX Support employee, the employee responded by describing Last Look as a "pricing check setup against BARX clients" to "ensure profitability of a trade for Barclays," but emphasized that "Our Team generally does not share this info with the client, and just say it was a business reject."<sup>92</sup>

179. Certain Barclays senior employees specifically instructed FX traders and information technology employees to conceal the existence of its last look system from Barclays's sales team:

---

<sup>92</sup> November 2015 NYS-DFS Barclays Consent Order at 7-8, *infra*.

- On June 6, 2011, in an email discussion about Last Look, a Barclays Managing Director and Head of Automated Electronic FX Trading wrote: “Do not involve Sales in anyway [sic] whatsoever. In fact avoid mentioning the existence of the whole BATS Last Look functionality. If you get enquiries just obfuscate and stonewall.”
- On August 4, 2011, a Barclays employee wrote to a trader: “for the future, sales absolutely 100% do not know about the existence of last look and it shouldn’t be a concern for them.”
- On November 7, 2011, the Barclays Managing Director and Head of Automated Electronic FX Trading wrote: “Do not discuss Last Look with Sales. If there has been a spurt [in rejected trades] just blame it on the weekend IT release and say it’s being fixed.”<sup>93</sup>

180. Finally, Barclays (and likely other banks) used last look systems to abuse clients who traded over ostensibly independent, multi-bank ECNs.

181. Multi-bank ECNs are dependent on the liquidity that banks like Barclays provide. These banks have considerable leverage over multi-bank ECNs. Barclays (and likely other banks) used that leverage to implement last look systems on multi-bank ECNs that worked in much the same ways as the systems on BARX. At least the following multi-bank ECNs have granted or continue to grant last look privileges to Barclays: Hotspot FX, Currenex, EBS Direct, Bloomberg, 360T Trading Networks, and FXall.

182. By indiscriminately using last look systems against the interests of ERISA retail customers, including Plaintiffs and the putative class, without their knowledge, Barclays acted as an ERISA fiduciary and violated ERISA’s fiduciary duties of prudence and loyalty, and entered into “prohibited transactions” under ERISA.

---

<sup>93</sup> November 2015 NYS-DFS Barclays Consent Order, *infra*, at 8-9.

183. Barclays may also have front run FX orders over BARX or multi-bank ECNs (*i.e.*, traded ahead of those orders for its own accounts), thereby garnering additional secret profits at their clients' expense. Use of a plan asset, such as knowledge of Plan FX orders, to benefit Barclays is yet another violation of ERISA.

## **L. Government Investigations**

184. Law enforcement and regulatory authorities in the United States, United Kingdom, European Union, Switzerland, Germany, Asia, Australia, New Zealand, Hong Kong, South Africa, Singapore, Australia, New Zealand, and Brazil, and the international Financial Stability Board have actively investigated or cooperated in active investigations of Defendants' conduct in the FX market since at least 2013. In 2014 and 2015, these investigations yielded consent orders and settlement agreements levying fines of more than \$8 billion. Some investigations are continuing.

### **1. The November 2014 Announcements of Agreements and Consent Orders**

#### **a. CFTC and UK-FCA**

185. On November 12, 2014, the CFTC announced that it had reached consent orders with five Defendant banks – Citigroup, JPMorgan, RBS, UBS, and HSBC.

186. Because of Defendants' "egregious behavior"<sup>94</sup> in manipulating the FX markets between 2009 through 2012, the CFTC negotiated remedial sanctions, including the following fines for violation of the Commodities Exchange Act: Citigroup (\$310

---

<sup>94</sup> U.S. CFTC, Statement of Chairman Tim Massad on Today's Forex Enforcement Announcement (November 12, 2014) (available at <http://www.cftc.gov/PressRoom/PressReleases/massadstatement111214>).

million);<sup>95</sup> JPMorgan (\$310 million);<sup>96</sup> RBS (\$290 million);<sup>97</sup> UBS (\$290 million)<sup>98</sup> and HSBC (\$275 million).<sup>99</sup> According to CFTC Chairman, Tim Massad, the fines were intended to send a message that “wrongdoing and foul play in the financial markets is unacceptable.”<sup>100</sup>

187. The CTFC consent orders described how each of the five Defendants sought to benefit its own trading positions or those of certain FX traders at other banks by attempting to manipulate and aiding and abetting certain traders at other banks in their attempts to manipulate certain FX benchmark rates.<sup>101</sup>

188. That same day, the UK-FCA announced that it had reached settlements with the same five banks for their role in manipulating FX markets. The UK-FCA imposed a total of \$1.76 billion in fines in connection with its investigation:<sup>102</sup> Citigroup

---

<sup>95</sup> Available at <http://www.cftc.gov/ucm/groups/public/@lrenforcementactions/documents/legalpleading/enfcitibankorder11114.pdf> (“2014 CTFC Citigroup Consent Order”).

<sup>96</sup> Available at <http://www.cftc.gov/ucm/groups/public/@lrenforcementactions/documents/legalpleading/enfjmpmoranorder11114.pdf> (“2014 CTFC JPMorgan Consent Order”).

<sup>97</sup> Available at <http://www.cftc.gov/ucm/groups/public/@lrenforcementactions/documents/legalpleading/enfroyalbankorder11114.pdf> (“2014 CTFC RBS Consent Order”).

<sup>98</sup> Available at <http://www.cftc.gov/ucm/groups/public/@lrenforcementactions/documents/legalpleading/enfubsorder11114.pdf> (“2014 CTFC UBS Consent Order”).

<sup>99</sup> 2014 CTFC HSBC Consent Order

<sup>100</sup> U.S. CFTC, Statement of Chairman Tim Massad on Today’s Forex Enforcement Announcement (November 12, 2014) (available at <http://www.cftc.gov/PressRoom/PressReleases/massadstatement111214>).

<sup>101</sup> 2014 CTFC Citigroup Consent Order at 2; 2014 CTFC JPMorgan Consent Order at 2; 2014 CTFC RBS Consent Order at 2; 2014 CTFC UBS Consent Order at 2; 2014 CTFC HSBC Consent Order at 2.

<sup>102</sup> Press release, *FCA fines five banks £1.1 billion for FX failings and announces industry-wide remediation programme* (available at <http://www.fca.org.uk/news/fca-fines-five-banks-for-fx-failings>) (“2014 UK-FCA Press Release”).

(\$358 million),<sup>103</sup> JPMorgan (\$352 million),<sup>104</sup> RBS (\$344 million),<sup>105</sup> UBS (\$371 million),<sup>106</sup> and HSBC (\$343 million).<sup>107</sup> The UK-FCA highlighted Defendants' violations of British financial law from January 1, 2008 through October 15, 2013. Its findings mirrored those of U.S. regulators. The notice of settlement for Citigroup stated:

Citi's failure to identify, assess and manage appropriately the risks in its G10 spot FX trading business allowed the following behaviours to occur in that business:

- (1) Attempts to manipulate the WMR and the ECB fix rates in collusion with traders at other firms, for Citi's own benefit and to the potential detriment of certain of its clients and/or other market participants;
- (2) Attempts to trigger clients' stop loss orders for Citi's own benefit and to the potential detriment of those clients and/or other market participants; and
- (3) Inappropriate sharing of confidential information with traders at other firms, including specific client identities and, as part of (1) and (2) above, information about clients' orders.<sup>108</sup>

The individual notices of the settlement for JPMorgan,<sup>109</sup> RBS,<sup>110</sup> UBS,<sup>111</sup> and HSBC<sup>112</sup> each contained virtually identical language.

---

<sup>103</sup> FCA Final Notice 2014: Citibank N.A. (available at <http://www.fca.org.uk/your-fca/documents/final-notices/2014/citibank-na>) at 2.

<sup>104</sup> FCA Final Notice 2014: JPMorgan Chase Bank N.A. (available at <http://www.fca.org.uk/your-fca/documents/final-notices/2014/jpmorgan-chase-bank>) at 2.

<sup>105</sup> FCA Final Notice 2014: The Royal Bank of Scotland Plc (available at <http://www.fca.org.uk/your-fca/documents/final-notices/2014/royal-bank-of-scotland>) at 2.

<sup>106</sup> FCA Final Notice 2014: UBS AG (available at <http://www.fca.org.uk/your-fca/documents/final-notices/2014/ubs-ag>) at 2.

<sup>107</sup> FCA Final Notice 2014: HSBC Bank Plc (available at <http://www.fca.org.uk/your-fca/documents/final-notices/2014/hsbc-bank-plc>) at 2.

<sup>108</sup> FCA Final Notice 2014: Citibank N.A. at 15.

<sup>109</sup> FCA Final Notice 2014: JPMorgan Chase Bank N.A. at 15.

<sup>110</sup> FCA Final Notice 2014: The Royal Bank of Scotland Plc at 15-16.

<sup>111</sup> FCA Final Notice 2014: UBS AG at 15-16.

<sup>112</sup> FCA Final Notice 2014: HSBC Bank Plc at 15.

189. The UK-FCA also provided links to video presentations that showed how each bank improperly manipulated the FX market.<sup>113</sup>

**b. Swiss FINMA**

190. Also on November 12, 2014, the Swiss Financial Market Supervisory Authority FINMA ordered Defendant UBS AG to disgorge the equivalent of \$138 million after its own investigation found UBS had participated in similar secretive and illegal activity between January 1, 2008 and September 30, 2013:

the bank had – partly also together with third banks – repeatedly and over a long period of time at least attempted to manipulate foreign exchange benchmarks and **acted against the interests of its own clients** owing to the conduct of several employees who had, for instance, engaged in front running and triggered client stop loss orders to the bank’s advantage in order to maximize its profits.<sup>114</sup>

191. FINMA concluded that “[l]oyalty to the group and mutual trust were unwritten laws and were particularly pronounced” in electronic chat rooms where the illegal FX manipulation secretly played out.<sup>115</sup>

**c. U.S. Comptroller of the Currency**

192. In yet another announcement of agreements on November 12, 2014, the OCC cited Citigroup, JPMorgan, and Bank of America for “unsafe and unsound” practices related to their foreign exchange trading businesses.<sup>116</sup> The OCC’s investigation of the three Defendants’ manipulation of the FX markets between 2008 through 2013

---

<sup>113</sup> 2014 UK-FCA Press Release, Notes for Editors No. 2 (available at <http://play.buto.tv/Z9kkQ> (Citigroup); <http://play.buto.tv/BjfMx> (JPMorgan); <http://play.buto.tv/N2Nwg> (RBS); <http://play.buto.tv/TLW6R> (UBS AG); <http://play.buto.tv/HcMF6> (HSBC)).

<sup>114</sup> Swiss FINMA, *Foreign exchange trading at UBS AG: investigation conducted by FINMA* (“FINMA Report”) (November 12, 2014) (available at <http://www.finma.ch/e/aktuell/Documents/ubs-fx-bericht-20141112-e.pdf>), at 2, 17 (emphasis added).

<sup>115</sup> FINMA Report at 6 (internal quotation omitted).

<sup>116</sup> Press Release, *OCC Fines Three Banks \$950 Million for FX Trading Improprieties*, (November 12, 2014) (available at <http://www.occ.treas.gov/news-issuances/news-releases/2014/nr-occ-2014-157.html>).

resulted in civil penalties of \$950 million: Citigroup (\$350 million),<sup>117</sup> JPMorgan (\$350 million),<sup>118</sup> and Bank of America (\$250 million).<sup>119</sup> Comptroller of the Currency Thomas J. Curry made clear that

[t]hese enforcement actions were taken because several large banks permitted an environment to develop in which unscrupulous traders discussed manipulating foreign exchange markets. Our action today, and those of our fellow regulatory agencies here in the United States, in the United Kingdom and in Europe, sends a very strong signal that such misconduct will not be tolerated.<sup>120</sup>

## **2. The May 20, 2015 Announcements of Agreements**

### **a. The U.S. Department of Justice and the Federal Reserve Board**

193. On May 20, 2015, the DOJ announced that plea agreements had been reached and that a record \$2.7 billion in penalties would be levied against five Defendant banks to settle criminal and regulatory investigations into these banks' illegal and improper collusion to manipulate the FX Spot Market benchmark rates, including the WM/Reuters Closing Spot rate and the European Central Bank FX rate.<sup>121</sup>

194. Citigroup, Barclays, JPMorgan, and RBS each admitted in their plea agreements with the DOJ to violating the federal antitrust laws and agreed to plead guilty to a one-count criminal Information.<sup>122</sup>

---

<sup>117</sup> Consent Orders available at <http://www.occ.treas.gov/news-issuances/news-releases/2014/nr-occ-2014-157c.pdf> and <http://www.occ.treas.gov/news-issuances/news-releases/2014/nr-occ-2014-157d.pdf>.

<sup>118</sup> Consent Orders available at <http://www.occ.treas.gov/news-issuances/news-releases/2014/nr-occ-2014-157f.pdf> and <http://www.occ.treas.gov/news-issuances/news-releases/2014/nr-occ-2014-157e.pdf>.

<sup>119</sup> Consent Orders available at <http://www.occ.treas.gov/news-issuances/news-releases/2014/nr-occ-2014-157b.pdf> and <http://www.occ.treas.gov/news-issuances/news-releases/2014/nr-occ-2014-157a.pdf>.

<sup>120</sup> *Id.*

<sup>121</sup> Press Release, *Five Major Banks Agree to Parent-Level Guilty Pleas* (May 20, 2015) (available at <http://www.justice.gov/opa/pr/five-major-banks-agree-parent-level-guilty-pleas>).

<sup>122</sup> 2015 Barclays Plea Agreement; 2015 Citigroup Plea Agreement; 2015 JPMorgan Plea Agreement; 2015 RSB Plea Agreement.

195. In the fifth plea agreement with the DOJ, UBS pled guilty to violating a 2012 non-prosecution agreement by committing illegal “fraudulent and deceptive currency trading and sales practices related to foreign exchange markets” and “collusion with other participants in the FX markets.”<sup>123</sup>

196. Consistent with the plea agreements, the DOJ concurrently filed five federal criminal Informations<sup>124</sup> against Citigroup, Barclays, JPMorgan, RBS, and UBS in which it alleged that each conspired to manipulate the price of U.S. dollars and euros exchanged in the FX spot market.<sup>125</sup> The banks agreed to pay the following fines for their conduct between December 2007 and at least January 2013: Barclays (\$650 million);<sup>126</sup> Citigroup (\$925 million);<sup>127</sup> JPMorgan (\$550 million);<sup>128</sup> RBS (\$395 million),<sup>129</sup> and UBS (\$203 million).<sup>130</sup>

197. In announcing the fines and criminal plea agreements, U.S. Attorney General Loretta Lynch declared that the five Defendant banks had “for years participated in a brazen display of collusion and foreign exchange rate market manipulation,” noting

---

<sup>123</sup> *U.S. v. UBS AG*, 3:15-cr-00076-SRU, Docket No. 6 (D. Conn. May 20, 2015) (“2015 UBS Plea Agreement”). UBS pled guilty to violating its December 2012 non-prosecution agreement with the DOJ as to UBS’ manipulation of the London Inter-Bank Offered Rate (LIBOR). By admitting to manipulating the FX currency markets and to in-house FX price manipulation, UBS violated the 2012 agreement reached regarding the participation of UBS in LIBOR manipulation. *Id.*

<sup>124</sup> A criminal information is similar to a criminal indictment, except that a defendant voluntarily pleads guilty and waives the right to an indictment by a grand jury.

<sup>125</sup> *U.S. v. Barclays PLC*, 3:15-cr-00077-SRU, Docket No. 1 (D. Conn. May 20, 2015); *U.S. v. Citicorp*, 3:15-cr-00078-SRU, Docket No. 1 (D. Conn. May 20, 2015); *U.S. v. JPMorgan Chase & Co.*, 3:15-cr-00079-SRU, Docket No. 1 (D. Conn. May 20, 2015); *U.S. v. The Royal Bank of Scotland PLC*, 3:15-cr-00080-SRU, Docket No. 1 (D. Conn. May 20, 2015); *U.S. v. UBS AG*, 3:15-cr-00076-SRU, Docket No. 1 (D. Conn. May 20, 2015).

<sup>126</sup> 2015 Barclays Plea Agreement.

<sup>127</sup> 2015 Citigroup Plea Agreement.

<sup>128</sup> 2015 JPMorgan Plea Agreement.

<sup>129</sup> 2015 RBS Plea Agreement.

<sup>130</sup> 2015 UBS Plea Agreement.

that “these unprecedeted figures appropriately reflect the conspiracy’s breathtaking flagrancy, its systemic reach and its significant impact.”<sup>131</sup>

198. The Defendants also each admitted to “other relevant conduct” that was “[i]n addition to …participation in a conspiracy to fix, stabilize, maintain, increase the price of, and rig bids and offers for” currency in the spot market. The other relevant conduct did not violate the antitrust laws, but deceived and harmed customers, including executing or “working” limit orders at prices better for Defendants than the limit order price, partially filling or not filling the orders at all in order to increase Defendants’ profits at the expense of their clients, and adding markup to clients’ orders by verbal or non-verbal communication, such as hand signals, between salesmen and traders.

199. The DOJ is reportedly continuing to investigate whether banking institutions violated the law when conducting FX Transactions using electronic algorithms.<sup>132</sup>

200. Also on May 20, 2015, the Federal Reserve issued consent orders related to six Defendant banks: Barclays, Bank of America, Citigroup, JPMorgan, RBS, and UBS. The orders included the following penalties, which were among the largest ever handed down by the Federal Reserve: Bank of America (\$205 million),<sup>133</sup> Barclays (\$342

---

<sup>131</sup> Prepared Remarks, *Attorney General Lynch Delivers Remarks at a Press Conference on Foreign Exchange Spot Market Manipulation* (May 20, 2015) (available at <http://www.justice.gov/opa/speech/attorney-general-lynch-delivers-remarks-press-conference-foreign-exchange-spot-market>).

<sup>132</sup> Karen Freifeld, *Traders Questioned as NY Probe of Automated FX Heats Up*, REUTERS (October 5, 2015) (available at <http://www.reuters.com/article/2015/10/05/automated-fx-probe-idUSL1N1252Q420151005>).

<sup>133</sup> 2015 USBOG-BOA Consent Order at 10.

million),<sup>134</sup> Citigroup (\$342 million),<sup>135</sup> JPMorgan (\$342 million),<sup>136</sup> RBS (\$274 million),<sup>137</sup> and UBS (\$342 million).<sup>138</sup>

201. The Federal Reserve cited the banks’ “unsafe and unsound practices in the foreign exchange markets” between 2008 and 2013, which included failures “to detect and address illegal agreements among traders to manipulate benchmark currency prices.”<sup>139</sup>

202. Four of the banks signed orders that cited a failure to provide information to FX customers regarding price quotes and how customer FX orders were filled, i.e., concealment. Here is an excerpt from the Barclays consent order:

D. Barclays’ deficient policies and procedures prevented Barclays from detecting and addressing unsafe and unsound conduct by the Bank’s and the Branch’s FX sales personnel regarding:

- (i.) the provision of information to customers regarding price quotes; and
- (ii.) the provision of information to customers about how a customer’s FX order is filled;

E. As a result of deficient policies and procedures described above, the Bank and the Branch engaged in unsafe and unsound banking practices.<sup>140</sup>

203. The consent orders require all six Defendants to establish “comprehensive policies and procedures to ensure that sales personnel and traders do not communicate

---

<sup>134</sup> 2015 USBOG-Barclays Consent Order at 11.

<sup>135</sup> 2015 USBOG-Citigroup Consent Order at 11.

<sup>136</sup> 2015 USBOG-JPMorgan Consent Order at 11.

<sup>137</sup> 2015 USBOG-RBS Consent Order at 10.

<sup>138</sup> 2015 USBOG-UBS Consent Order at 11.

<sup>139</sup> Press Release (May 20, 2015) (available at <http://www.federalreserve.gov/newsevents/press/enforcement/20150520a.htm>).

<sup>140</sup> 2015 USBOG-Barclays Consent Order at 5. *See also* 2015 USBOG-Citigroup Consent Order at 5; 2015 USBOG-JPMorgan Consent Order at 4; 2015 USBOG-UBS Consent Order at 5.

inaccurate or misleading information to customers regarding: (i) the amount of markup, commission, or other service charge applied to customer orders by the firm; and (ii) how orders are executed by the firm....”<sup>141</sup>

204. The Federal Reserve excluded alleged FX pricing manipulation achieved through electronic trading formats from its releases also announced May 20, 2015.

#### **b. NYS-DFS, CFTC, and UK-FCA Orders for Barclays**

205. Also on May 20, 2015, three more government entities –the NYS-DFS, the CFTC, and the UK-FCA – announced they had reached agreements with Barclays to settle their investigations into Barclays’s manipulation of the FX markets.<sup>142</sup> Barclays agreed to pay penalties totaling \$1.32 billion in connection with those agreements.<sup>143</sup>

206. NYS-DFS Superintendent Benjamin M. Lawsky pulled no punches in describing Barclays’s conduct: “Put simply, Barclays employees helped rig the foreign exchange market. They engaged in a brazen ‘heads I win, tails you lose’ scheme to rip off

---

<sup>141</sup> 2015 USBOG-Barclays Consent Order at 7; 2015 USBOG-BOA Consent Order at 7; 2015 USBOG-Citigroup Consent Order at 8; 2015 USBOG-JPMorgan Consent Order at 8; 2015 USBOG-RBS Consent Order at 7; 2015 USBOG-UBS Consent Order at 8.

<sup>142</sup> Press Release, *NYDFS Announces Barclays to Pay \$2.4 Billion, Terminate Employees for Conspiring to Manipulate Spot FX Trading Market* (May 20, 2015) (available at <http://www.dfs.ny.gov/about/press/pr1505201.htm>); Press Release 7181-15, *Barclays to Pay \$400 Million Penalty to Settle CFTC Charges of Attempted Manipulation and False Reporting of Foreign Exchange Benchmark Rates* (May 20, 2015) (available at <http://www.cftc.gov/PressRoom/PressReleases/pr7181-15>); Press Release, *FCA Fines Barclays for £284,432,000 for Forex Failings* (May 20, 2015) (available at <http://www.fca.org.uk/news/press-releases/fca-fines-barclays-for-forex-failings#>).

<sup>143</sup> May 2015 NYS-DFS Barclays Consent Order (\$485,000,000 penalty); CFTC consent order (“2015 CTFC Barclays Consent Order”) (\$400,000,000 penalty) (available at [http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfbarclaysborder\\_052015.pdf](http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfbarclaysborder_052015.pdf)); UK-FCA Notice of agreement (“2015 UKFCA-Barclays Notice”) (£284,432,000 United Kingdom penalty – calculated in U.S. dollars) (available at <http://www.fca.org.uk/your-fca/documents/final-notices/2015/barclays-bank-plc>).

their clients. While today's action concerns misconduct in spot trading, there is additional work ahead.”<sup>144</sup>

207. As part of the May 20, 2015 Agreements, some of the six Defendant banks agreed to terminate certain employees and to monitoring by regulators.

208. The NYS-DFS made clear on May 20, 2015 that it was continuing its investigation into abuse of electronic trading platforms.<sup>145</sup> NYS-DFS specifically excluded such electronic trading from the releases in its agreement with Barclays, and made clear that its investigation “will continue” for electronically-traded FX, where the “vast majority of transactions” in the FX market take place.

### **3. The November 2015 Barclays Consent Agreement on “Last Look”**

209. On November 18, 2015, the NYS-DFS announced that its ongoing investigation into trading over ECNs, and specifically last look systems, had resulted in a new consent agreement with Barclays.<sup>146</sup>

210. Because of its improper behavior and concealment of its conduct from its customers, Barclays agreed to pay a penalty of \$150 million in exchange for the NYS-DFS ceasing its investigation. This is in addition to the \$1.32 billion that regulators and enforcement bodies fined Barclays for FX market manipulation.<sup>147</sup>

---

<sup>144</sup> Press Release, *NYDFS Announces Barclays to Pay \$2.4 Billion, Terminate Employees for Conspiring to Manipulate Spot FX Trading Market* (May 20, 2015) (available at <http://www.dfs.ny.gov/about/press/pr1505201.htm>).

<sup>145</sup> *Id.*

<sup>146</sup> Press Release, *NYFDS Announces Barclays to Pay Additional \$150 Million Penalty, Terminate Employee for Automated Electronic Foreign Exchange Trading Misconduct* (November 18, 2015) (available at <http://www.dfs.ny.gov/about/press/pr1511181.htm>); November 2015 NYS-DFS Barclays Consent Order

<sup>147</sup> NYS-DFS specifically excluded such electronic trading from the releases in its agreement with Barclays announced May 20, 2015.

211. Acting Superintendent Albanese warned that the Barclays case “highlights the need for greater oversight and action to help prevent the misuse of automated, electronic trading platforms on Wall Street” and that such abuse is “a wider industry issue that requires serious additional scrutiny.”<sup>148</sup>

212. NYS-DFS’s investigation is ongoing. Recent news reports state that NYS-DFS is continuing to investigate and/or has issued subpoenas to Defendants Deutsche Bank, Credit Suisse Group AG, Goldman Sachs and BNP Paribas to determine whether they used algorithms on their proprietary trading platforms to “front-run or otherwise manipulate foreign exchange rates” since 2014.<sup>149</sup> The DOJ reportedly has similar ongoing investigations as to improper electronic FX manipulation.<sup>150</sup>

#### **4. Other Investigations and Remedial Measures**

213. The Financial Stability Board issued a report on the FX manipulation in September 2014 that noted the structural flaws in the international FX markets,<sup>151</sup> and made fifteen different recommendations for changes to FX benchmark practices and structures.<sup>152</sup>

---

<sup>148</sup> Press Release, NYDFS Announces Barclays to Pay Additional \$150 Million Penalty, Terminate Employee for Automated, Electronic Foreign Exchange Trading Misconduct (November 18, 2015) (available at <http://www.dfs.ny.gov/about/press/pr1511181.htm>).

<sup>149</sup> Karen Freifeld, *Traders Questioned as NY Probe of Automated FX Heats Up*, REUTERS (October 5, 2015) (available at <http://www.reuters.com/article/2015/10/05/automated-fx-probe-idUSKBN1252Q420151005>); Gina Chon and Katie Martin, *Barclays fined \$150m over electronic forex trading*, FINANCIAL TIMES, (November 18, 2015) (available at <http://www.ft.com/intl/cms/s/0/4afc8ea6-8e09-11e5-a549-b89a1dfede9b.html#axzz3uKUUA1q8>).

<sup>150</sup> *Id.*

<sup>151</sup> Financial Stability Board, “Foreign Exchange Benchmarks: Final Report” (September 30, 2014) (available at [http://www.financialstabilityboard.org/wp-content/uploads/r\\_140930.pdf](http://www.financialstabilityboard.org/wp-content/uploads/r_140930.pdf)).

<sup>152</sup> *Id.* at 3-5.

214. In June 2015, the Bank of England's Fair and Effective Markets Review issued broad policy proposals as part of its broad prescription for policy changes in the fixed income, currency, and commodities markets (FICC), including for FX Transactions.<sup>153</sup> The 110-page report came in “the wake of the serious misconduct seen in recent years”,<sup>154</sup> and recommended a range of changes to codes of conduct, market mechanisms, and civil and criminal law penalties, such as:

- Creating a new statutory civil and criminal market abuse regime for spot foreign exchange, drawing on the international work on a global code.
- [I]mprove the controls and transparency around FX market practices, including ‘last look’ and time stamping.<sup>155</sup>

215. Other FX standard setting boards and regulators, including the Bank for International Settlements,<sup>156</sup> the European Union Competitiveness Commission,<sup>157</sup> the Brazilian CADE, and the South African Competition Commission have announced investigations into the FX market manipulation by global banking institutions.

### **THE ERISA TRUSTS, BENEFIT PLANS AND ERISA CLAIMS**

216. ERISA “employee benefit plans” include “employee pension benefit plans” and “employee welfare benefit plans.” 29 U.S.C. § 1002(3). A welfare plan is

---

<sup>153</sup> Bank of England, “Fair and Effective Markets Review: Final Report” (June 2015) (available at <http://www.bankofengland.co.uk/markets/Documents/femrjun15.pdf>).

<sup>154</sup> *Id.* at 5.

<sup>155</sup> *Id.* at 7.

<sup>156</sup> Press Release, *Working Group to Strengthen Code of Conduct Standards and Principles in Foreign Exchange Market Has Commenced Work* Bank of International Settlements (July 24, 2015) (available at <http://www.bis.org/press/p150724.htm>).

<sup>157</sup> Madison Marriage, *Forex Rigging Scandal Still Hangs Over Banks*, FINANCIAL TIMES (October 4, 2015).

typically the vehicle through which an employer provides health insurance to its employees.

217. ERISA benefit plans, especially over the last decade, have found it necessary and prudent to expand their investments to include foreign securities. ERISA plans regularly purchase and sell foreign securities in order to diversify and take advantage of opportunities for higher returns. ERISA plans routinely receive principal, dividends, interest, tax reclaims, and other payments in foreign currencies. The plans also hold real estate that require the exchange of foreign currency into and from U.S. dollars. FX Transactions are vital to an ERISA plan's participation in the international markets and to the management of currency risk.

218. During the Class Period, the Plans used investment managers to invest Plan assets for the exclusive purpose of providing plan participants and beneficiaries with pension and health benefits. Investment managers authorized FX Transactions with Plan assets when their investment strategies for a Plan required the exchange of one currency for another.

219. During the Class Period, many investment managers of ERISA Plan assets arranged with Defendant banks to conduct FX Transactions with ERISA assets. Some banks, including some of the Defendant banks, were custodians of the Plans' assets.

220. Often a Plan or its investment manager buys, sells, or holds American Depository Receipts ("ADRs"). ADRs represent interests in foreign securities of a non-US company. ADRs are issued by a bank and trade in U.S. financial markets.

221. When the ADR underlying a foreign security declares a dividend or makes an interest payment in non-U.S. currency, the Plan must enter into an FX Transaction to convert the foreign currency to U.S. dollars.

222. Sponsors of ADRs include Defendants Citigroup, Deutsche Bank, and JPMorgan. The Bridgestone Retirement Plan, the two Caterpillar Plans, the ILGWU Death Benefit Fund, and their associated trusts (as applicable) invested in ADRs sponsored by these Defendants. A list of ADRs sponsored by Defendants and held as investments by the Plans is attached as Appendix 7.

223. Defendants Citigroup, Deutsche Bank and JP Morgan engaged in the FX trading practices described in this Class Action Complaint when pricing dividends generated by the investments associated with the ADRs held by ERISA Plan, including the ADRs sponsored by these banks.

#### **A. The Bridgestone Americas Salaried Employees Retirement Plan**

224. During the Class Period, the Bridgestone Master Pension Trust managed the combined investment assets of several employee pension benefit plans sponsored by entities owned or controlled by Bridgestone Americas, Inc., based in Nashville, Tennessee, including the Bridgestone Americas Salaried Employees Retirement Plan. These participating employee benefit plans are qualified plans under ERISA. 29 U.S.C. §1002(2)(A).

225. The assets of the Bridgestone Master Pension Trust are ERISA assets.

226. During the Class Period, investment managers of the assets of the Bridgestone Master Pension Trust arranged with Defendant banks to conduct FX Transactions, each of which involved ERISA assets of the Bridgestone Retirement Plan.

For instance, Barclays, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JPMorgan, Morgan Stanley, and UBS executed FX Transactions with the assets of the Bridgestone Master Pension Trust and its constituent ERISA Plans. Appendix 1 contains examples of FX Transactions that these nine Defendants provided to the Bridgestone Master Pension Trust during the Class Period.

227. At the time that Defendants conducted or authorized FX Transactions for the Bridgestone Master Pension Trust assets, they engaged in the FX trading practices described in this Class Action Complaint and reaped profits for themselves at the expense of the Bridgestone Master Pension Trust, the Bridgestone Retirement Plan, and Plaintiff Lucas.

228. Defendants concealed their fiduciary violations and prohibited transactions from the Bridgestone Master Pension Trust, the Bridgestone Retirement Plan, and Plaintiff Lucas.

## **B. The Caterpillar Inc. Retirement Income Plan**

229. During the Class Period, the Caterpillar Retirement Master Trust managed the combined investment assets of several employee pension benefit plans sponsored by entities that were owned or controlled by Caterpillar Inc., of Peoria, Illinois, including the Caterpillar Inc. Retirement Income Plan, a defined benefit pension plan. These participating employee benefit plans are qualified plans under ERISA. 29 U.S.C. §1002(2)(A).

230. The assets of the Caterpillar Retirement Master Trust are ERISA assets.

231. During the Class Period, investment managers of the Caterpillar Retirement Master Trust's assets arranged with the Defendant banks to conduct FX

Transactions, each of which involved ERISA assets of the Caterpillar Retirement Plan. For instance, Deutsche Bank, Morgan Stanley, RBS and UBS executed FX Transactions with the assets of the Caterpillar Retirement Master Trust and its constituent ERISA Plans. Appendix 2 contains examples of FX Transactions these Defendants performed for the Caterpillar Retirement Master Trust during the Class Period.

232. At the time that Defendants conducted or authorized FX Transactions for the Caterpillar Retirement Master Trust, they engaged in the FX trading practices described in this Class Action Complaint and reaped illegal profits from those practices for themselves at the expense of the Caterpillar Retirement Master Trust, Caterpillar Retirement Plan, and Plaintiff Allen.

233. Defendants concealed their fiduciary violations and prohibited transactions from the Caterpillar Retirement Master Trust, Caterpillar Retirement Plan, and Plaintiff Allen.

### **C. The Caterpillar Inc. Retiree Benefit Program**

234. During the Class Period, the Caterpillar Insurance Master Trust managed the combined investment assets of several employee welfare benefit plans sponsored by entities owned or controlled by Caterpillar, Inc., based in Peoria, Illinois, including Caterpillar Inc. Retiree Benefit Program. These participating employee welfare benefit plans are qualified plans under ERISA. 29 U.S.C. §1002(2)(A).

235. The assets of the Caterpillar Insurance Master Trust are ERISA assets.

236. During the Class Period, investment managers of assets of the Caterpillar Insurance Master Trust arranged for the Defendant banks to conduct FX Transactions, each of which involved ERISA assets of the Caterpillar Health Plan. These included

investment managers using forward contracts to manage foreign exchange rate risks associated with certain investments.<sup>158</sup> For instance, Bank of America, Morgan Stanley, RBS, and UBS executed FX Transactions with the assets of the Caterpillar Insurance Master Trust and its constituent ERISA employee benefit plans. Appendix 3 contains examples of FX Transactions that these Defendants performed for the Caterpillar Insurance Master Trust during the Class Period.

237. At the time that Defendants executed FX Transactions for the Caterpillar Insurance Master Trust, they engaged in the FX trading practices described in this Class Action Complaint and reaped profits from those practices for themselves at the expense of the Caterpillar Insurance Master Trust, Caterpillar Health Plan, and Plaintiff Allen.

238. Defendants concealed their fiduciary violations and prohibited transactions from the Caterpillar Insurance Master Trust, Caterpillar Health Plan, and Plaintiff Allen.

**D. The Health Corporation of America 401(k) Plan and The Health Corporation of America Retirement Plan**

239. During the Class Period, the HCA Inc. Master Retirement Trust (“HCA Master Retirement Trust”) managed the combined investment assets of several employee pension benefit plans sponsored by entities that were owned or controlled by Health Corporation of America, Inc. of Nashville, Tennessee. Those plans include the Health Corporation of America 401(k) Plan and the HCA Retirement Plan. The assets of the HCA Retirement Plan were transferred to the HCA 401(k) Plan in April 2008. Both of

---

<sup>158</sup> 2009 U.S. Dept. of Treasury, Internal Revenue Service Form 5500, Caterpillar Inc. Retiree Benefit Program at 12.

these HCA plans are defined contribution plans. These participating employee benefit plans are qualified plans under ERISA. 29 U.S.C. §1002(2)(A).

240. The assets of the HCA Master Retirement Trust are and were ERISA assets.

241. During the Class Period, investment managers of assets of the HCA Master Retirement Trust arranged for Defendant banks to conduct FX Transactions that involved ERISA assets of the HCA 401(k) Plan and the HCA Retirement Plan. Bank of America, Barclays, BNP Paribas, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JPMorgan, Morgan Stanley, RBS, and UBS executed FX Transactions with the assets of the HCA Master Retirement Trust and its constituent ERISA employee benefit plans. Appendix 4 contains examples of FX Transactions that these Defendants performed for the HCA Master Retirement Trust during the Class Period.

242. At the time that Defendants executed FX Transactions for the HCA Master Retirement Trust, they engaged in the FX trading practices described in this Class Action Complaint and reaped profits from those practices for themselves at the expense of the HCA Master Retirement Trust, the HCA 401(k) Plan, the HCA Retirement Plan, and Plaintiff Kellen and Plaintiff Anselman.

243. Defendants concealed their fiduciary violations and prohibited transactions from the HCA Master Retirement Trust, the HCA 401(k) Plan, the HCA Retirement Plan, and Plaintiff Kellen and Plaintiff Anselman.

#### **E. The Baker Hughes Incorporated Thrift Plan**

244. During the Class Period, the Baker Hughes Incorporated Thrift Plan was an employee pension benefit plan sponsored by Baker Hughes Incorporated of Houston,

Texas. The Baker Hughes Thrift Plan was and is a defined contribution plan that is a qualified plan under ERISA. 29 U.S.C. §1002(2)(A).

245. The assets of the Baker Hughes Thrift Plan are ERISA assets.

246. During the Class Period, investment managers of assets of the Baker Hughes Thrift Plan arranged for Defendant banks to conduct FX Transactions involving the plan's assets. Bank of America, Barclays, BNP Paribas, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JPMorgan, Morgan Stanley, RBS and UBS executed FX Transactions with the assets of the Baker Hughes Thrift Plan. Appendix 5 contains examples of FX Transactions that these Defendants provided to the Baker Hughes Thrift Plan during the Class Period.

247. At the time that Defendants executed FX Transactions for the Baker Hughes Thrift Plan, they engaged in the FX trading practices described in this Class Action Complaint and reaped profits for themselves at the expense of the Baker Hughes Thrift Plan and Plaintiff Garrett.

248. Defendants concealed their fiduciary violations and prohibited transactions from the Baker Hughes Thrift Plan and Plaintiff Garrett.

#### **F. The International Ladies Garment Workers Union Death Benefit Fund 2**

249. During the Class Period, the International Ladies Garment Workers Union Death Benefit Fund 2 was an employee pension benefit plan sponsored by UNITEHERE!, a labor organization based in New York City, New York. The ILGWU Death Benefit Fund was and is a defined benefit plan that is a qualified plan under

ERISA. 29 U.S.C. §1002(2)(A). The Fund assets are held for the purpose of providing death benefits to a beneficiary upon the passing of a plan participant.<sup>159</sup>

250. The assets of the ILGWU Death Benefit Fund are ERISA assets.

251. During the Class Period, investment managers of assets of the ILGWU Death Benefit Fund arranged for Defendant banks to enter into FX Transactions involving the Plan's assets. Bank of America, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JPMorgan, Morgan Stanley, RBS and UBS executed FX Transactions, including outright forwards, with the assets of the ILGWU Death Benefit Fund. Appendix 6 contains examples of FX Transactions that Defendants provided to the ILGWU Death Benefit Fund during the Class Period.

252. At the time that Defendants executed FX Transactions for the ILGWU Death Benefit Fund, they engaged in the FX trading practices described in this Class Action Complaint and reaped profits for themselves at the expense of the ILGWU Death Benefit Fund and its participants and beneficiaries in violation of their duties as fiduciaries.

253. Defendants concealed their fiduciary violations and prohibited transactions from the ILGWU Death Benefit Fund and its participants and beneficiaries.

#### **G. Defendants' Fiduciary Status and ERISA Violations**

254. Every ERISA plan must have one or more named fiduciaries to administer and manage the plan. ERISA treats as fiduciaries not only persons explicitly named as fiduciaries, but also any other person who in fact performs fiduciary functions.

---

<sup>159</sup> The ILGWU Death Benefit Fund 2 will terminate on December 31, 2015 and be replaced on January 1, 2016 by the ILGWU Death Benefit Fund 3. The latter fund will succeed as to all assets and liabilities of ILGWU Death Benefit Fund 2.

255. An ERISA fiduciary is required to “discharge his duties with respect to a plan solely in the interest of the participants and beneficiaries and … for the exclusive purpose of … providing benefits to participants and beneficiaries and … defraying the reasonable expenses of administering the plan ....” ERISA, 29 U.S.C. §1104(a)(1)(A)(i), (ii). In common parlance, ERISA fiduciaries owe a duty of loyalty.

256. A person is a fiduciary under ERISA “to the extent … he exercises any discretionary authority or discretionary control respecting management of such plan or ***exercises any authority or control respecting management or disposition of its assets....***” 29 U.S.C. §1002(21)(A)(i) (emphasis added). Thus, to the extent Defendants exercised any authority or control (discretionary or not) over the management or disposition of the Plans’ assets or exercised any discretionary authority or discretionary control over the management of the Plans or the Plans’ assets in executing foreign exchange transactions, they acted as fiduciaries under ERISA. Notably, an entity may be a fiduciary under ERISA even if it would not qualify as an agent under the common law.

257. In addition, Defendants were fiduciaries under ERISA to the extent they helped the Plans manage, or had any authority or responsibility to manage, FX Transactions with respect to any moneys or other property of the Plans for a fee or other compensation (whether direct or indirect).

258. Defendants exercised discretionary authority and control over plan assets and management. Through the FX trading practices described in this Class Action Complaint, Defendants exercised discretion as to the rates at which they executed FX Transactions for ERISA Plans, including when those rates were based on or near FX fixing rates such as the WM/Reuters Closing Spot Rate. Further, in manipulating FX

prices and spreads, the Defendants exercised control over, and respecting, the disposition of the assets of the Plan.

259. Defendants also exercised discretionary authority and control over plan assets and management when they used Plans' confidential information, which is an asset of the Plans, for their own profit.

260. Further, Defendants set their own fees or compensation for executing FX Transactions for the ERISA Plans. In other words, Defendants' fees or compensation for executing FX Transactions varied depending on factors within Defendants' influence and control, which Defendants manipulated to increase their own fees or compensation. Each Defendant exercised this discretion regardless of whether the Defendant that provided the FX Transaction service was a Plan's custodian bank.

261. As a Plan fiduciary, each Defendant was also a *per se* party-in-interest to that ERISA Plan. Further, any Defendants that provided a service to a particular Plan was a party-in-interest to that Plan, as were certain related entities.

262. Defendants concealed their manipulative conduct from their clients, including their ERISA clients. As a result, the FX Transactions between the Plans and the Defendants were not on terms that could have been achieved in arm's length transactions.

#### **PLAINTIFFS ARE ENTITLED TO THE BENEFIT OF ERISA'S FRAUD OR CONCEALMENT LIMITATIONS PERIOD**

263. ERISA's statute of limitations provision for fiduciary breach claims provides that "in the case of fraud or concealment, [an] action may be commenced not later than six years after the date of discovery of such breach or violation." 29 U.S.C. §1113.

264. Defendants' FX manipulation constitutes intentional concealment sufficient to trigger ERISA's fraud or concealment limitations period. Indeed, Defendants' conduct was self-concealing by its very nature.

265. Some of Defendants' highest-ranking traders controlled and strictly limited the access to the chat rooms in question. In addition, each Defendant agreed with the other bank FX manipulators not to discuss publicly or otherwise reveal their manipulative conduct and agreements with each other.

266. In addition, when the first Defendant (Citigroup) announced its decision to bar traders from accessing chat rooms, it offered a pretextual explanation, describing the decision as a "sign of concern by banks over online security issues."<sup>160</sup>

267. Defendants wield substantial power over clients who trade in the FX markets. Each Defendant's success in concealing its FX rate manipulation and its participation in the manipulation was facilitated by this control. It is noteworthy that the first public reports of the FX manipulation came from bank FX dealers themselves, not bank customers.

268. To Plaintiffs' knowledge, the first report of possible manipulation was in a Bloomberg article on June 11, 2013.<sup>161</sup> That report, however, was premised on "five dealers with knowledge of the practice" who were not identified in the article.<sup>162</sup> The

---

<sup>160</sup> Alice Ross, *Citi Removes Forex Traders from Bloomberg internal chat groups*, FINANCIAL TIMES (May 16, 2013) (available at <http://on.ft.com/1m4mj1g>).

<sup>161</sup> Liam Vaughan, Gavin Finch and Ambereen Choudhury, *Traders Said to Rig Currency Rates to Profit Off Clients*, BLOOMBERG (June 11, 2013) (available at <http://bloom.bg/1qGQ3oy>).

<sup>162</sup> *Id.*

dealers specifically “declined to identify which banks engaged in manipulative practices.”<sup>163</sup>

269. The Bloomberg article did not identify the currency pairs involved in the manipulation of the WM/Reuters Closing Spot Rate or the parties to the rigging, and gave little detail about how the rigging occurred. Further, the article neither exposed that manipulation occurred as to spreads on particular currency pairs nor exposed any Defendant’s individual, non-collusive manipulation of FX markets.

270. After the Bloomberg article appeared, no Defendant addressed the allegations. It was not until October 2013 that the first traders alleged to be involved in the FX-rigging were put on leave.

271. The first class action complaint, alleging antitrust claims, was filed in the Southern District of New York, on November 1, 2013 after the FX traders were first put on leave.

272. Defendants kept their participation in many, if not all, of the chat rooms exclusive to certain FX traders. When inviting in a new member, traders in chat rooms tried to ensure that a new member agreed to put the interests of the group first. For instance, in the example below, traders from three Defendant banks – Citigroup, JPMorgan, and UBS – discussed whether to invite a Barclays trader into a chat room,

---

<sup>163</sup> *Id.*

worrying whether the potential new participant would “protect us” like “we protected each other...”:<sup>164</sup>

TIME	TRADER	MESSAGE
7:49:55	UBS Trader:	are we ok with keeping this as is .. ie the info lvls & risk sharing?
7:50:27	Citigroup Trader:	well ...
7:50:30	UBS Trader:	that is the qu[estion]
7:50:32	Citigroup Trader:	you know him best obv ...
7:50:39		if you think we need to adjust it
7:50:43		then he shouldn't be[] in chat
7:50:54	JPMorgan Trader:	yeah that is key
7:51:00		simple question [Bank Z Trader]
7:51:08		I bust you implicitly [Bank Z Trader]
7:51:13		and your judgement
7:51:16		you know him
7:51:21		will he tell rest of desk stuff
7:51:26		or god forbin his nyk ...
7:51:46	Citigroup Trader:	yes
7:51:51		that's really imp[ortant] q[uestion]
7:52:01		dont want other numpty's in mkt to know
7:52:17		but not only that
7:52:21		is he gonna protect us
7:52:33		like we protect each other against our own branches
7:52:46		ie if you guys are rhs <sup>165</sup> .. and my nyk is lhs .. ill say my nyk lhs in few
7:53:52	UBS Trader:	what concerns me is that i know he'll never tell us when at risk ...

273. Similarly, Barclays, and any other Defendants that used their proprietary electronic trading platforms to cancel ERISA plans’ orders when the market moved

---

<sup>164</sup> 2015 CFTC Office Of Public Affairs Release, 2014 CTFC Citigroup Consent Order at 5-6, 2014 CTFC JPMorgan Consent Order at 5-6, 2014 CTFC UBS Consent Order at 5-6. See also 2014 CTFC HSBC Consent Order at 5; 2014 CTFC RBS Consent Order at 5-7; chat room transcripts *supra* (showing the exclusive nature of the chat rooms).

<sup>165</sup> According to the CFTC, if an FX trader has orders to sell the first currency listed in any currency pair, it is often referred to as being on the left - hand side, or “lhs.” If an FX trader references right hand side, or “rhs,” it indicates that the FX trader is a buyer of the second currency listed in a currency pair. *Id.*

against Defendants, or to front-run their orders, actively concealed those practices from their ERISA clients and the public.<sup>166</sup>

274. There are many additional reasons why Plaintiffs could not have learned facts sufficient to bring a claim until Defendants and regulators publicly acknowledged investigations. FX Transactions occur primarily in the OTC market. Defendants' transactions and FX strategies are not public. They do not publish information concerning particular FX Transactions, including transactions between dealers. Defendants also discouraged brokers from revealing or otherwise identifying them as counterparties on the brokers' customers' transactions.

275. In sum, virtually none of the facts that Plaintiffs needed to draft a complaint was known until the Bloomberg article was published on June 11, 2013, and much of the conduct was unknown until Defendants and regulators acknowledged the investigations that eventually led to billions of dollars in fines. And no amount of reasonable diligence would have allowed Plaintiffs to learn those facts sooner.

### CLASS ALLEGATIONS

276. **Class Definition.** Plaintiffs bring this action as a class action pursuant to Federal Rule of Civil Procedure 23(a), (b)(1), (b)(2), and (b)(3) on behalf of the following class:

The Class comprises all participants, beneficiaries, and named fiduciaries of qualified ERISA plans for whom a Defendant (or their affiliates or predecessors in interest) (1) provided foreign currency exchange transactional services (including foreign currency transactional services provided to collective investment funds or separately managed accounts that held the

---

<sup>166</sup> See Barclays November 18, 2015 admissions, *supra*. As stated, regulators continue to investigate whether Deutsche Bank and other Defendants used Last Look and other algorithms improperly and illegally.

Plans' assets) or (2) exercised any discretionary authority or discretionary control respecting management of such ERISA plan or exercised any authority or control respecting management or disposition of its assets by which a Defendant authorized or permitted the execution of any foreign currency exchange transactional services involving that plan's assets by any banking entity.

Excluded from the class are any officers, directors, affiliates, legal representatives, heirs, successors, subsidiaries, and/or assigns of the Defendants or any of their respective predecessors in interest or any entity in which any Defendant or any of their respective predecessors in interest have a controlling interest.

277. Allowing this case to go forward as a class action will promote judicial economy.

278. **Ascertainability.** The Class is readily ascertainable and is one for which records should exist.

279. **Numerosity.** The members of the Class are so numerous that joinder of all members is impracticable. While the exact number of Class members is unknown to Plaintiffs and can only be ascertained through appropriate discovery, Plaintiffs believe that hundreds of ERISA Plans representing the savings of millions of participants and beneficiaries throughout the country<sup>167</sup> lost money because of Defendants' unlawful conduct. ERISA pension assets alone totaled \$17.5 trillion in 2011.<sup>168</sup> In 2012, defined benefit ERISA pension plans in the top 200 plans invested \$372 billion in active international equities,<sup>169</sup> much of which likely was exposed to Defendants' massive and

---

<sup>167</sup> For example, a total of 418,829 plan participants and beneficiaries rely on just the six named Plaintiff Plans: (HCA 401(k) Plan - 267,544 - 2013); (Caterpillar Retirement Plan - 49,146 - 2012); (Caterpillar Benefit Plan - 13,893- 2013); (Bridgestone Plan - 11,785 - 2011); (Baker Hughes Thrift Plan - 32,478 - 2013); (ILGWU Death Benefit Fund - 43,983- 2014).

<sup>168</sup> *World Briefs*, PENSIONS & INVESTMENTS (May 27, 2013) at 50.

<sup>169</sup> Rick Baert, *Developed, emerging markets stocks both enjoy solid increases*, PENSIONS & INVESTMENTS (February 4, 2013) (available at <http://goo.gl/7CcvRm>).

improper schemes. Defendants were responsible for 82% of the \$5.3 trillion daily global FX market in 2013.

280. **Commonality.** The claims of Plaintiffs and all Class members originate from the same misconduct, breaches of duties, and violations of ERISA by Defendants. Questions of law and fact common to the Class include, but are not limited to:

- a. Whether Defendants participated in schemes to fix, raise, elevate, maintain, or stabilize the WM/Reuters Closing Spot Rates, the European Central Bank FX rates, or other FX fixing rates;
- b. Identifying the participants in the alleged manipulation of the WM/Reuters Closing Spot Rates, the European Central Bank FX rate, or other FX fixing rates;
- c. Identifying when Defendants' manipulative schemes began, and how long they lasted;
- d. Whether Defendants' manipulation of the FX Spot Market affected the rates at which FX Transactions were priced;
- e. Whether Defendants executed foreign currency transactions for ERISA plans in ways that allowed them to reap improper profits at the expense of their ERISA clients;
- f. Whether Defendants were ERISA fiduciaries to the Class members;
- g. Whether Defendants exercised any authority or control (discretionary or not) over the management or disposition of the Plans' assets or exercised any discretionary authority or discretionary control over the management

of the Plans or the Plans' assets in executing foreign exchange transactions involving ERISA assets;

- h. Whether Defendants breached their fiduciary duties of prudence and loyalty to Class members;
- i. Whether Defendants' actions constituted self-dealing and transactions prohibited by ERISA;
- j. Whether Defendants' breaches of their fiduciary duties caused losses to Plaintiffs and Class members, and profits to the Defendants;
- k. Whether Defendants' prohibited transactions caused losses to Plaintiffs and Class members; and
- l. Identifying the appropriate nature of Class-wide injunctive or other equitable relief.

281. **Typicality.** Plaintiffs' claims on behalf of their Plans are not only typical of, but the same as, claims that would be brought with respect to other Plans. Individual cases would require each member of the Class to prove the same claims, based on the same conduct of the Defendants, using the same legal theories, and seek the same relief.

282. **Adequacy.** Plaintiffs will fairly and adequately protect the interests of Class members. Plaintiffs have no interests antagonistic to, or in conflict with, those of the Class. Plaintiffs will vigorously protect the interests of absent Class members. Plaintiffs have retained counsel who are competent and have extensive experience in complex, class action, and ERISA litigation. Plaintiffs' counsel includes the firms of McTigue Law LLP and Grais & Ellsworth LLP.

283. **Rule 23(b)(1)(A) & (B) Requirements.** Class action status is warranted under Federal Rule of Civil Procedure 23(b)(1)(A) because prosecution of separate actions by Class members would create a risk of establishing incompatible standards of conduct for Defendants. Class action status is also warranted under Rule 23(b)(1)(B), because prosecution of separate actions by Class members would create a risk of adjudications with respect to individual Class members that, as a practical matter, would be dispositive of the interests of other members who are not parties to this action, or that would substantially impair or impede their ability to protect their interests.

284. **Rule 23(b)(2) Requirements.** Certification under Rule 23(b)(2) is warranted because Defendants have acted or refused to act on grounds generally applicable to the Class, thereby making final injunctive, declaratory, or other equitable relief that is appropriate with respect to the Class as a whole. No plan-by-plan inquiry would be required to determine whether Defendants breached their fiduciary duties.

285. **Rule 23(b)(3) Requirements.** In the alternative, certification under Rule 23(b)(3) is appropriate because questions of law or fact common to Class members predominate over any questions affecting only individual members, and class action treatment is superior to the other available methods for the fair and efficient adjudication of this controversy.

## **CLAIMS FOR RELIEF**

### **COUNT I**

#### **Breach of Duties of Prudence and Loyalty (Violation of ERISA, 29 U.S.C. §1104 by All Defendants)**

286. All previous averments are incorporated herein.

287. At all relevant times, Defendants were fiduciaries of the Plans within the meaning of ERISA, 29 U.S.C. §1002(21)(A).

288. Defendants exercised discretionary authority or control with respect to management of the Plans or the disposition of the assets of the Plans when they

- a. conducted FX Transactions for their own accounts and for their own benefit based on knowledge of Plans' pending trades, disclosed Plans' confidential information to other Defendants that traded on the information, received and traded on Plans' confidential information received from other Defendants knowing that information to be confidential, or otherwise used Plans' confidential information for Defendants' own profit and not for the exclusive benefit of Plans;
- b. executed or authorized FX Transactions for the Plans to be priced at or around the manipulated FX Spot Market fixing times (or based on those FX Spot Market fixing rates) at the same time they were collusively manipulating the FX Spot Market fixing rates to their financial benefit,
- c. executed or authorized FX Transactions for the Plans to be priced at individual FX Spot Market prices that Defendants had manipulated (directly or through rigging fixing rates) for their own financial benefit; and
- d. profited at the Plans' expense by executing stop-loss, take-profit, or other similar orders for the Plans, all while collusively manipulating market prices to take advantage of so-called "trigger" prices related to orders.

289. Defendants breached their ERISA fiduciary duties of prudence and loyalty, 29 U.S.C. §1104(a)(1)(A), (B), when executing FX trades with Plan assets by:

- a. using Plans' confidential information for Defendants' own profit and not for the exclusive benefit of Plans;
- b. pricing FX Transactions involving the assets of the Plans at or around the FX Spot Market fixing times or based on collusively manipulated FX Spot Market fixing rates, which resulted in excessive and windfall profits for Defendants that were far in excess of what fully informed parties would have agreed to for comparable transactions in arm's-length bargain;
- c. pricing FX Transactions involving the assets of the Plans at the same time they were collusively manipulating individual FX Spot Market rates, which resulted in excessive and windfall profits for Defendants that were far in excess of what fully informed parties would have agreed to for comparable transactions in arm's-length bargain;
- d. failing to disclose to the Plans or their trustees, participants, or beneficiaries, that Defendants (in their capacities as fiduciaries) would not act exclusively in the interest of participants and beneficiaries when executing and authorizing FX Transactions;
- e. failing to fully disclose to the Plans or their trustees, participants, or beneficiaries the conduct described in this Class Action Complaint; and
- f. appropriating the assets of the Plans for Defendants' own benefit, and reducing the assets of the Plans.

290. Each Defendant committed these breaches in its fiduciary capacity, as described, each time it executed or authorized the execution of any FX Transaction involving assets of the Plans that were transacted at or around the collusively

manipulated FX Spot Market fixing times, or that were based on collusively manipulated FX Spot Market fixing rates, or that were based on collusively manipulated individual FX Transaction rates.

291. As a direct and proximate result of these breaches of fiduciary duty, the Plans and their participants and beneficiaries suffered hundreds of millions of dollars of losses. Moreover, for the defined benefit plans in the Class, these losses increased the risk of non-payment of future benefits to participants and beneficiaries.

292. Defendants committed these breaches in Their fiduciary capacities, as described, for each FX Transaction involving assets of the Plans that were transacted by Defendants using the collusive FX Transaction methods described in this Class Action Complaint.

293. ERISA requires that Defendants (i) restore all losses suffered by the Plans caused by the Defendants' breaches of fiduciary duty; and (ii) disgorge all the profits they earned on these transactions.

## COUNT II

### **Engaging in Self-Interested Prohibited Transactions with Plan Assets (Violation of ERISA, 29 U.S.C. §1106(b)(1) by All Defendants)**

294. All previous averments are incorporated herein.

295. ERISA prohibits fiduciaries from engaging in certain transactions and imposes strict liability for any losses that result. Specifically, "a fiduciary with respect to a plan shall not . . . deal with the assets of the plan in his own interest or for his own account. . ." 29 U.S.C. §1106(b)(1).

296. Each Defendant, acting as a fiduciary to a Plan or Plans, committed prohibited transactions when it (i) dealt with the assets of the Plans for its own interest

and for its own account by executing or authorizing FX Transactions for the Plans; (ii) collusively manipulated the FX Spot Market fixing rates; or (iii) collusively manipulated the price of individual FX Transactions and added markups to transactions for Plans. As a result, Defendants reaped secret profits not disclosed to the Plans and enriched themselves at the expense of the Plans and their participants.

297. The terms of such FX Transactions were less favorable to the Plans than terms that would have generally been available in comparable arm's-length FX Transactions between unrelated parties, and that would have been available from Defendants in comparable arm's-length FX Transactions involving unrelated parties had the conduct described in this Class Action Complaint and Defendants' concealment of that conduct not occurred.

298. As a direct and proximate result of these prohibited transactions, the Plans and their participants and beneficiaries suffered hundreds of millions of dollars of losses. For the defined benefit plans in the Class, these losses also increased the risk of non-payment of future benefits to participants and beneficiaries.

299. Defendants committed these breaches in their fiduciary capacities, as described, for each FX Transaction involving assets of the Plans that were transacted by Defendants using the collusive FX Transaction methods described in this Class Action Complaint.

300. ERISA requires that Defendants (i) restore all losses suffered by the Plans caused by the Defendants' breaches of fiduciary duty; and (ii) disgorge all the profits they earned on these transactions.

### COUNT III

#### **Acting in on Behalf of a Party with Interests Adverse to the Plans (Violation of ERISA, 29 U.S.C. §1106(b)(2) by All Defendants)**

301. All previous averments are incorporated herein.
302. ERISA prohibits fiduciaries from engaging in certain activities and imposes strict liability for any losses that result. Specifically, “a fiduciary with respect to a plan shall not . . . act in any transaction involving the plan on behalf of a party. . . whose interests are adverse to the interests of the plan or the interests of its participants or beneficiaries. . . .” 29 U.S.C. §1106(b)(2).
303. Each Defendant, acting as a fiduciary to a Plan or Plans, committed prohibited transactions when it participated in transactions involving the assets of the Plans for itself and the other Defendants that participated in the conduct described in this Class Action Complaint. Each Defendant colluded with the participating banks to reap secret profits (either for itself or other participating banks) at the expense of the Plans and their participants and did not disclose this collusion to the Plans.
304. A prohibited transaction occurred each time (i) a Defendant executed or authorized an FX Transaction involving Plan assets that were priced at or near the collusively manipulated FX Spot Market fixing times; (ii) an FX Transaction was priced based on a collusively manipulated FX fixing rate; or (iii) an FX Transaction was priced on a collusively manipulated individual FX Transaction rate.
305. The terms of such FX Transactions were less favorable to the Plans than terms that would have generally been available in comparable arm’s-length FX Transactions between unrelated parties, or that would have been available from Defendants in comparable arm’s-length FX Transactions involving unrelated parties had

the conduct described in this Class Action Complaint and Defendants' concealment of that conduct not occurred.

306. As a direct and proximate result of these prohibited transactions, the Plans and their participants and beneficiaries suffered hundreds of millions of dollars of losses. For the defined benefit plans in the Class, these losses also increased the risk of non-payment of future benefits to participants and beneficiaries.

307. Defendants committed these breaches in their fiduciary capacities, as described, for each FX Transaction involving assets of the Plans that were transacted by Defendants using the collusive FX Transaction methods described in this Class Action Complaint.

308. ERISA requires that Defendants (i) restore all losses suffered by the Plans caused by the Defendants' breaches of their fiduciary duties; and (ii) disgorge all the profits they earned on these transactions.

#### COUNT IV

##### **Causing the Plans to Engage in Party in Interest Prohibited Transactions (Violation of ERISA, 29 U.S.C. §1106(a)(1) by All Defendants)**

309. All previous averments are incorporated herein.

310. ERISA prohibits fiduciaries from causing a plan to engage in certain transactions with parties in interest with respect to a plan.<sup>170</sup> Specifically:

A fiduciary with respect to a plan shall not cause the plan to engage in a transaction, if he knows or should know that such transaction constitutes a direct or indirect –

---

<sup>170</sup> 29 U.S.C. §1002(14)(A), (B) (a party in interest with respect to a plan includes "any fiduciary (including, but not limited to, any administrator, officer, trustee, or custodian)...[or] a person providing services to such plan...").

(A) sale or exchange, or leasing, of any property between the plan and a party in interest; [or],

\* \* \* \*

(D) transfer to, or use by or for the benefit of, a party in interest, of any assets of the plan[.]

29 U.S.C. §1106(a)(1).

311. Defendants caused the Plans to enter into transactions with parties in interest.

312. These transfers of a Plan's assets to, and use of Plan assets for the benefit of, the party in interest (Defendant or a colluding bank that participated in the FX Transaction) allowed the party in interest to reap secret profits from the collusive conduct described in this Class Action Complaint.

313. The terms of such FX Transactions were less favorable to the Plans than terms that would have generally been available in comparable arm's-length FX Transactions between unrelated parties, or that would have been available from the Defendants in comparable arm's-length FX Transactions involving unrelated parties had the conduct described in this Class Action Complaint and the Defendants' concealment of that conduct not occurred.

314. As a direct and proximate result of these prohibited transactions, the Plans and their participants and beneficiaries suffered hundreds of millions of dollars of losses. For the defined benefit plans in the Class, these losses also increased the risk of non-payment of future benefits to participants and beneficiaries.

315. Each Defendant committed these breaches in its fiduciary capacity, as described, during each FX Transaction involving assets of the Plans that were transacted by Defendants using the collusive FX Transaction methods described in this Class Action Complaint.

316. ERISA requires that Defendants (i) restore all losses suffered by the Plans caused by the Defendants' breaches of their fiduciary duties; and (ii) disgorge all the profits they earned on these transactions.

**COUNT V**

**Liability for Knowingly Participating in  
Prohibited Transaction as a Party in Interest  
(Relief under ERISA, 29 U.S.C. §1132(a)(3) for  
Participation in a Transaction Prohibited  
by 29 U.S.C. §1106(a)(1), by All Defendants)**

317. All previous averments are incorporated herein.

318. This claim is pled in the alternative to the preceding counts I-IV. It is pled to the extent any Defendant is found not to be an ERISA fiduciary with respect to any of the conduct complained of above.

319. ERISA provides a cause of action against a nonfiduciary party in interest when such party knew or should have known it participated in a transaction prohibited by 29 U.S.C. §1106(a)(1). As alleged above, each Defendant, through the collusive conduct described in this Class Action Complaint, knowingly participated as a party in interest in prohibited transactions in violation of 29 U.S.C. §1106(a)(1)(A) and (D).

320. Defendants were parties in interest to the Plans as the entity that executed or authorized FX Transactions with assets of the Plans using the collusive FX Transaction methods described in this Class Action Complaint. Those transactions violated 29 U.S.C. §1106(a)(1)(A) and (D) for all the reasons stated above. The collusive FX Transaction methods described in this Class Action Complaint generated profits for each Defendant that executed or authorized the transactions as the expense of ERISA Plans.

321. The terms of such FX Transactions were less favorable to the Plans than terms that would have generally been available in comparable arm's-length FX Transactions between unrelated parties, or that would have been available from Defendants in comparable arm's-length FX Transactions involving unrelated parties had the collusive conduct described in this Class Action Complaint and concealment of that conduct by Defendants not occurred.

322. As a direct and proximate result of these prohibited transactions, the Plans and their participants and beneficiaries suffered hundreds of millions of dollars of losses. For the defined benefit plans in the Class, these losses increased the risk of non-payment of future benefits to participants and beneficiaries.

323. Pursuant to ERISA, Defendants must return to the Plans all plan assets wrongfully obtained from the participation in the prohibited transactions, and all other equitable relief due to the Plans under §1132(a)(3).

## COUNT VI

### **Breach of Duties of Prudence and Loyalty (Violation of ERISA, 29 U.S.C. §1104 by Barclays, Citigroup, JPMorgan, RBS and UBS)**

324. All previous averments are incorporated herein.

325. At all relevant times, Defendants were fiduciaries of the Plans under ERISA. 29 U.S.C. §1002(21)(A).

326. Each Defendant exercised discretionary authority and control with respect to the management of the Plans or the disposition of the assets of the Plans when it:

- a. entered proprietary FX Transactions based on knowledge of Plans' pending trades or otherwise used Plans' confidential information for its own profit and not for the exclusive benefit of Plans;

- b. used secret internal techniques to execute foreign currency transactions on behalf of the Plans using the non-collusive methods described in this Class Action Complaint and reaped improper profits at the expense of their ERISA clients, and
- c. set its own compensation on FX Transactions through the conduct described in this Class Action Complaint.

327. Defendants breached their ERISA fiduciary duties of prudence and loyalty, 29 U.S.C. §1104(a)(1)(A), (B), when executing FX trades for the Plans or with the assets of the Plans by:

- a. pricing FX Transactions involving assets of the Plans through the methods described in this Class Action Complaint, which resulted in Defendants reaping improper profits at the expense of their ERISA clients;
- b. failing to disclose to the Plans, their fiduciaries, or participants and beneficiaries that Defendants were setting their own compensation for FX Transactions with the Plans and charging the Plans much higher rates than what the parties would have agreed to in an arm's-length negotiation;
- c. failing to disclose to the Plans, or their trustees, participants and beneficiaries that Defendants (when acting as fiduciaries) would not act exclusively in the interest of Plan participants and beneficiaries while executing and authorizing FX Transactions;
- d. secretly used electronic trading platforms to automatically cancel orders for the Plans through last look or other computer algorithms, or to front-run those orders, to reap illegal profits at the expense of the Plans,

- e. failing to fully disclose to the Plans, their fiduciaries, or participants and beneficiaries the conduct described in this Class Action Complaint as it related to FX Transactions that involved Plans or Plan assets; and
- f. appropriating the assets of the Plans (and trading based on knowledge of the Plans' orders) for their own benefit to the detriment of the Plans.

328. The terms of such FX Transactions were less favorable to the Plans than terms that would have generally been available in comparable arm's-length FX Transactions between unrelated parties, or that would have been available from Defendants in comparable arm's-length FX Transactions involving unrelated parties had the conduct described in this Class Action Complaint and Defendants' concealment of that conduct not occurred.

329. As a direct and proximate result of these breaches of fiduciary duty, the Plans and their participants and beneficiaries suffered hundreds of millions of dollars of losses. For the defined benefit plans in the Class, these losses also increased the risk of non-payment of future benefits to participants and beneficiaries.

330. Each Defendant committed these breaches in its fiduciary capacity, as described, for each FX Transaction involving assets of the Plans that were transacted by Defendants using the non-collusive FX Transaction methods described in this Class Action Complaint.

331. ERISA requires that Defendants (i) restore all losses suffered by the Plans caused by the Defendants' breaches of their fiduciary duties; and (ii) disgorge all the profits they earned on these transactions.

## COUNT VII

### **Engaging in Self-Interested Prohibited Transactions with Plan Assets (Violation of ERISA, 29 U.S.C. §1106(b)(1) by Barclays, Citigroup, JPMorgan, RBS and UBS)**

332. All previous averments are incorporated herein.
333. ERISA prohibits fiduciaries from engaging in certain transactions and imposes strict liability for any losses that result. Specifically, “a fiduciary with respect to a plan shall not . . . deal with the assets of the plan in his own interest or for his own account. . . .” 29 U.S.C. §1106(b)(1).
334. Each Defendant, acting as a fiduciary to a Plan or Plans, committed prohibited transactions when it dealt with the assets of the Plans for its own interest and for its own account in executing FX Transactions on behalf of the Plans that reaped Defendants secret profits through the non-collusive FX Transaction methods described in this Class Action Complaint, which were not disclosed to the Plans, enriching themselves at the expense of the Plans and their participants.
335. The terms of such FX Transactions were less favorable to the Plans than terms that would have generally been available in comparable arm’s-length FX Transactions between unrelated parties, or that would have been available from Defendants in comparable arm’s-length FX Transactions involving unrelated parties had the collusive conduct described in this Class Action Complaint and Defendants’ concealment of that conduct not occurred.
336. As a direct and proximate result of these prohibited transactions, the Plans and their participants and beneficiaries suffered hundreds of millions of dollars of losses. For the defined benefit plans in the Class, these losses also increased the risk of non-payment of future benefits to participants and beneficiaries.

337. Each Defendant committed these breaches in its fiduciary capacity, as described, for each FX Transaction involving assets of the Plans that were transacted by Defendants using the non-collusive FX Transaction methods described in this Class Action Complaint.

338. ERISA requires that Defendants (i) restore all losses suffered by the Plans caused by the Defendants' breaches of their fiduciary duties; and (ii) disgorge all the profits they earned on these transactions.

## COUNT VIII

### **Acting on Behalf of a Party with Interests Adverse to the Plans (Violation of ERISA, 29 U.S.C. §1106(b)(2) by Barclays, Citigroup, JPMorgan, RBS and UBS)**

339. All previous averments are incorporated herein.

340. ERISA prohibits fiduciaries from engaging in certain activities and imposes strict liability for any losses that result. Specifically, "a fiduciary with respect to a plan shall not . . . act in any transaction involving the plan on behalf of a party . . . whose interests are adverse to the interests of the plan or the interests of its participants or beneficiaries. . . ." 29 U.S.C. §1106(b)(2).

341. Each Defendant, acting as a fiduciary to a Plan, entered into a prohibited transaction each time it executed an FX Transaction using the non-collusive methods described in this Class Action Complaint, thereby enriching itself at the expense of the Plans and their participants and beneficiaries.

342. Each Defendant committed these breaches in its fiduciary capacity, as described, for each FX Transaction involving assets of the Plans that were transacted by Defendants using the non-collusive FX Transaction methods described in this Class Action Complaint.

343. The terms of such FX Transactions were less favorable to the Plans than terms that would have generally been available in comparable arm's-length FX Transactions between unrelated parties, or that would have been available from Defendants in comparable arm's-length FX Transactions involving unrelated parties had the conduct described in this Class Action Complaint and Defendants' concealment of those practices not occurred.

344. As a direct and proximate result of these prohibited transactions, the Plans and their participants and beneficiaries suffered hundreds of millions of dollars of losses. For the defined benefit plans in the Class, these losses increased the risk of non-payment of future benefits to participants and beneficiaries.

345. ERISA requires that Defendants (i) restore all losses suffered by the Plans caused by the Defendants' breaches of their fiduciary duties; and (ii) disgorge all the profits they earned on these transactions.

## COUNT IX

### **Causing the Plans to Engage in Party in Interest Prohibited Transactions (Violation of ERISA, 29 U.S.C. §1106(a)(1) by Barclays, Citigroup, JPMorgan, RBS and UBS)**

346. All previous averments are incorporated herein.

347. ERISA prohibits fiduciaries from causing a plan to engage in certain transactions with parties in interest with respect to a plan, specifically:

A fiduciary with respect to a plan shall not cause the plan to engage in a transaction, if he knows or should know that such transaction constitutes a direct or indirect –

(A) sale or exchange, or leasing, of any property between the plan and a party in interest; [or],

\* \* \* \*

(D) transfer to, or use by or for the benefit of, a party in interest, of any assets of the plan[.]

29 U.S.C. §1106(a)(1).

348. Defendants caused the Plans to enter into transactions with parties in interest. 29 U.S.C. §1002(14)(A), (B).

349. Defendants' actions caused the Plans to transfer plan assets to a party in interest with respect to the Plans, namely the FX trading arms of Defendants themselves to execute FX Transactions with assets of the Plans. These transfers of Plan assets to, and use of Plan assets for the benefit of, the parties in interest allowed the parties in interest to reap secret profits through the use of the non-collusive conduct described in this Class Action Complaint.

350. These actions resulted in an exchange of property between the Plans and parties in interest, for the benefit of the parties in interest, which is prohibited by ERISA.

351. Each Defendant committed these breaches in its fiduciary capacity, as described, for each FX Transaction involving assets of the Plans that were transacted by Defendants using the non-collusive FX Transaction methods described in this Class Action Complaint.

352. The terms of such FX Transactions were less favorable to the Plans than terms that would have generally been available in comparable arm's-length FX Transactions between unrelated parties, or that would have been available from Defendants in comparable arm's-length FX Transactions involving unrelated parties had the conduct described in this Class Action Complaint and concealment of those practices by Defendants not occurred.

353. As a direct and proximate result of these prohibited transactions, the Plans and their participants and beneficiaries suffered hundreds of millions of dollars of losses. For the defined benefit plans in the Class, these losses increased the risk of non-payment of future benefits to participants and beneficiaries.

ERISA requires that Defendants (i) restore all losses suffered by the Plans caused by the Defendants' breaches of their fiduciary duties; and (ii) disgorge all the profits they earned on these transactions.

#### **JURY DEMAND**

354. Plaintiffs demand a trial by a jury of six (6) persons as to all claims triable by jury.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs pray for relief as follows:

- a. Declare that the Defendants breached their fiduciary duties under ERISA;
- b. Declare that the Defendants have violated ERISA's prohibited transactions provisions;
- c. Issue an order compelling a proper accounting of the FX Transactions in which the Plans have engaged;
- d. Issue an order compelling defendants to disgorge all profits from proprietary trades made with knowledge of the Plans' pending orders or with knowledge of confidential information concerning other Plans' pending orders improperly disclosed by other Defendants, and profits made by other Defendants from propriety trades with knowledge of Plans' confidential information;

e. Issue an order compelling Defendants to restore all losses caused to the Plans (or that will be caused to the Plans after the filing of this Class Action Complaint), including lost investment returns on money that would have been invested but for Defendants' illegal conduct;

f. Issue an order compelling the Defendants to disgorge all fees paid to or incurred by the Plans (or that will be paid or incurred by the Plans after the filing of this Class Action Complaint), including any profits thereon;

g. Order surcharge, equitable restitution, and other appropriate equitable monetary relief against the Defendants;

h. Award such other equitable or remedial relief as may be appropriate, including the permanent removal of the Defendants from any positions of trust with respect to the Plans;

i. Order that this action be certified as a class action and that a constructive trust be established for distribution to the extent required by law;

j. Enjoin Defendants collectively, and each of them individually, from any further violations of their fiduciary responsibilities, obligations, and duties under ERISA;

k. Award Plaintiffs' attorneys' fees and costs pursuant to ERISA, 29 U.S.C. §1132(g) or the Common Fund doctrine; and

l. Award such other and further relief as the Court deems equitable and just.

Respectfully submitted,

Dated: April 6, 2016  
New York, NY

**GRAIS & ELLSWORTH LLP**

By:   
J. Ross Wallin

**GRAIS & ELLSWORTH LLP**

1211 Avenue of the Americas  
New York, NY 10036  
Tel: (212) 755-7876  
Fax: (212) 755-0052  
[rwallin@graisellsworth.com](mailto:rwallin@graisellsworth.com)

J. Brian McTigue *admitted pro hac vice*  
Regina M. Markey *admitted pro hac vice*

**MCTIGUE LAW LLP**  
4530 Wisconsin Avenue, NW  
Suite 300  
Washington, DC 20016  
Tel: (202) 364-6900  
Fax: (202) 364-9960  
[bmctigue@mctiguelaw.com](mailto:bmctigue@mctiguelaw.com)  
[rmarkey@mctiguelaw.com](mailto:rmarkey@mctiguelaw.com)

*Counsel for Plaintiffs*

# Appendix 1

## Bridgestone Master Pension Trust

Date	BARCLAYS	Currency Pair	\$US Value
July 30, 2009	BARCLAYS WHOLESALE GTS	USD / EUR	-10,158,757.56
July 31, 2009	BARCLAYS WHOLESALE GTS	EUR / USD	-1,584,766.80
August 3, 2009	BARCLAYS WHOLESALE GTS	USD / SEK	-8,721,725.96
August 24, 2009	BARCLAYS WHOLESALE GTS	EUR / USD	-9,016,123.84
August 31, 2009	BARCLAYS WHOLESALE GTS	CAD / USD	5,167,372.00
September 8, 2009	BARCLAYS WHOLESALE GTS	USD / CAD	115,609.09
September 21, 2009	BARCLAYS WHOLESALE GTS	USD / GBP	5,081,175.12
October 12, 2009	BARCLAYS WHOLESALE GTS	NZD / USD	3,792,020.00
October 19, 2009	BARCLAYS WHOLESALE GTS	USD / NZD	53,856.00
October 19, 2009	BARCLAYS WHOLESALE GTS	USD / NZD	30,668.00
November 2, 2009	BARCLAYS WHOLESALE GTS	EUR / USD	63,713.10
January 21, 2010	BARCLAYS WHOLESALE GTS	GBP / USD	94,029.60
April 19, 2010	BARCLAYS WHOLESALE GTS	USD / GBP	-26,010.00
May 10, 2010	BARCLAYS WHOLESALE GTS	USD / GBP	-7,531,913.34
June 1, 2010	BARCLAYS WHOLESALE GTS	GBP / USD	204,368.92
August 2, 2010	BARCLAYS WHOLESALE GTS	USD / GBP	-13,683,214.71
August 9, 2010	BARCLAYS WHOLESALE GTS	USD / GBP	-8,936,395.50
September 7, 2010	BARCLAYS WHOLESALE GTS	USD / MXN	-6,749,088.19
September 27, 2010	BARCLAYS WHOLESALE GTS	GBP / USD	26,918.48
September 28, 2010	BARCLAYS WHOLESALE GTS	RUB / USD	141,800.85
December 15, 2010	BARCLAYS WHOLESALE GTS	USD / TWD	-4,671,479.18
December 15, 2010	BARCLAYS WHOLESALE GTS	USD / TWD	-5,146,982.15
February 1, 2011	BARCLAYS WHOLESALE GTS	MXN / USD	3,651,877.99
March 14, 2011	BARCLAYS WHOLESALE GTS	EUR / USD	9,259,594.71
April 11, 2011	BARCLAYS WHOLESALE GTS	GBP / USD	9,847.80
July 5, 2011	BARCLAYS WHOLESALE GTS	USD / JPY	-111,503.25
July 12, 2011	BARCLAYS WHOLESALE GTS	BRL / USD	167,173.25
August 1, 2011	BARCLAYS WHOLESALE GTS	CAD / USD	7,682,018.16
October 18, 2011	BARCLAYS WHOLESALE GTS	INR / USD	153,229.40
October 24, 2011	BARCLAYS WHOLESALE GTS	USD / JPY	-20,860.44
October 31, 2011	BARCLAYS WHOLESALE GTS	JPY / USD	-6,031,639.72
November 7, 2011	BARCLAYS BANK PLC WHOLESALE	USD / JPY	-12,081,443.79
November 28, 2011	BARCLAYS BANK PLC WHOLESALE	CAD / USD	6,108,430.70
November 28, 2011	BARCLAYS BANK PLC WHOLESALE	CAD / USD	4,817,958.11
January 30, 2012	BARCLAYS BANK PLC WHOLESALE	USD / NZD	-6,521,846.76
March 27, 2012	BARCLAYS BANK PLC WHOLESALE	ILS / USD	65,676.14
May 1, 2012	BARCLAYS BANK PLC WHOLESALE	USD / ILS	-103,573.61
May 8, 2012	BARCLAYS BANK PLC WHOLESALE	USD / ILS	-33,854.21
June 4, 2012	BARCLAYS BANK PLC WHOLESALE	USD / AUD	-9,595,584.88
August 10, 2012	BARCLAYS BANK PLC WHOLESALE	BRL / USD	104,650.01
August 14, 2012	BARCLAYS BANK PLC WHOLESALE	USD / KRW	-4,556,882.12
October 30, 2012	BARCLAYS BANK PLC WHOLESALE	USD / RUB	-6,388,280.25
November 26, 2012	BARCLAYS BANK PLC WHOLESALE	USD / CHF	-1,304,268.22
February 5, 2013	BARCLAYS BANK PLC WHOLESALE	USD / RUB	14,806.93
April 2, 2013	BARCLAYS BANK PLC WHOLESALE	RUB / USD	-140,568.66
May 6, 2013	BARCLAYS BANK PLC WHOLESALE	USD / NOK	9,132,112.70
July 1, 2013	BARCLAYS BANK PLC WHOLESALE	USD / GBP	-249,641.78
July 22, 2013	BARCLAYS BANK PLC WHOLESALE	AUD / USD	4,335,049.18
July 30, 2013	BARCLAYS BANK PLC WHOLESALE	RUB / USD	-6,052,439.99
August 5, 2013	BARCLAYS BANK PLC WHOLESALE	GBP / USD	-39,853.06

## Bridgestone Master Pension Trust

Date	CITIBANK	Currency Pair	\$US Value
June 28, 2011	CITIBANK N.A. LONDON	USD / RUB	-5,071,248.45
July 5, 2011	CITIBANK NEW YORK	RUB / USD	4,682,440.67
July 19, 2011	CITIBANK NEW YORK	RUB / USD	-7,830,382.64
August 2, 2011	CITIBANK N.A. LONDON	INR / USD	8,518,083.43
August 9, 2011	CITIBANK NEW YORK	CLP / USD	84,260.35
August 15, 2011	CITIBANK N.A. LONDON	SEK / USD	142,245.74
August 15, 2011	CITIBANK N.A. LONDON	SEK / USD	-75,480.51
August 16, 2011	CITIBANK NEW YORK	INR / USD	2,532,706.97
August 23, 2011	CITIBANK N.A. LONDON	CLP / USD	8,981,313.22
August 24, 2011	CITIBANK NEW YORK	SEK / USD	222,994.31
August 24, 2011	CITIBANK NEW YORK	USD / INR	8,253,902.71
September 6, 2011	CITIBANK NEW YORK	USD / SEK	-3,125,320.65
October 10, 2011	CITIBANK N.A. LONDON	SEK / USD	-277,473.80
October 24, 2011	CITIBANK N.A. LONDON	SEK / USD	97,202.57
October 31, 2011	CITIBANK N.A. LONDON	USD / SEK	-3,690,192.55
October 31, 2011	CITIBANK N.A. LONDON	USD / SEK	6,102,885.96
November 1, 2011	CITIBANK N.A.	RUB / USD	4,058,812.16
December 5, 2011	CITIBANK N.A.	CHF / USD	9,196,016.62
January 3, 2012	CITIBANK N.A.	RUB / USD	155,873.15
January 3, 2012	CITIBANK N.A.	NZD / USD	6,346,511.36
January 30, 2012	CITIBANK N.A.	NOK / USD	5,463,591.75
February 7, 2012	CITIBANK N.A.	TWD / USD	56,089.31
February 28, 2012	CITIBANK N.A.	USD / TWD	-4,888,445.95
April 16, 2012	CITIBANK N.A.	NZD / USD	6,641,948.62
June 5, 2012	CITIBANK N.A.	SGD / USD	4,347,998.47
August 3, 2012	CITIBANK N.A.	ZAR / USD	272,250.22
August 7, 2012	CITIBANK N.A.	ZAR / USD	4,583,989.17
September 10, 2012	CITIBANK N.A.	SEK / USD	1,938,292.75
October 2, 2012	CITIBANK N.A.	INR / USD	3,142,047.18
October 30, 2012	CITIBANK N.A.	INR / USD	6,431,379.06
November 20, 2012	CITIBANK N.A.	INR / USD	91,071.71
December 17, 2012	CITIBANK N.A.	JPY / USD	8,951,348.14
December 24, 2012	CITIBANK N.A.	CAD / USD	13,594,453.79
December 31, 2012	CITIBANK N.A.	BRL / USD	3,375,121.95
January 15, 2013	CITIBANK N.A.	USD / KRW	-578,575.20
January 15, 2013	CITIBANK N.A.	USD / INR	-12,587.44
February 19, 2013	CITIBANK N.A.	GBP / USD	2,323,995.84
March 25, 2013	CITIBANK N.A.	GBP / USD	12,152.72
April 1, 2013	CITIBANK N.A.	USD / GBP	42,578.14
April 15, 2013	CITIBANK N.A.	GBP / USD	-9,938,682.18
April 16, 2013	CITIBANK N.A.	USD / INR	-4,811,736.48
April 29, 2013	CITIBANK N.A.	GBP / USD	29,414.09
June 3, 2013	CITIBANK N.A.	NOK / USD	21,974,267.05
July 1, 2013	CITIBANK N.A.	USD / CAD	-8,365,666.25
July 1, 2013	CITIBANK N.A.	SEK / USD	8,428,046.21
July 9, 2013	CITIBANK N.A.	USD / TWD	-6,001,326.46
October 14, 2013	CITIBANK N.A.	USD / CHF	-44,106.78
October 28, 2013	CITIBANK N.A.	CHF / USD	13,799,351.30

## Bridgestone Master Pension Trust

Date	CREDIT SUISSE	Currency Pair	\$US Value
March 5, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD /CAD	-6,759,100.70
March 19, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	CAD / USD	28,327.69
March 26, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	CAD / USD	3,029,722.54
June 4, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	NZD / USD	2,355,643.96
June 11, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / NZD	-49,413.12
July 3, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / TWD	-4,437,713.71
July 9, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / CAD	-4,901.07
July 16, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	CAD / USD	6,741,904.84
July 16, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	CAD / USD	1,063,112.46
July 17, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	TWD / USD	1,410,245.29
August 6, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / CHF	-6,883,475.83
August 7, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / TWD	-9,180,922.15
August 10, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	TWD / USD	207,040.37
August 14, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	MXN / USD	4,581,041.27
August 28, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	TWD / USD	2,248,629.68
August 28, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / MXN	-2,254,048.93
September 4, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	NOK / USD	8,617,936.65
September 5, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	TWD / USD	1,126,919.21
September 24, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / NOK	-1,901,809.13
October 3, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / NOK	-1,219,904.62
October 8, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / NOK	-8,691,751.11
October 15, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / NOK	-12,949,677.53
November 5, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	CAD / USD	43,120.74
November 12, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / CAD	-8,806,896.82
November 13, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / ZAR	-3,256,649.24
November 19, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / CAD	-3,987,924.86
December 3, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / GBP	-14,486.36
December 4, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / ZAR	-3,235,412.02
December 10, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / GBP	-6,674,477.34
December 11, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	ZAR / USD	3,292,008.96
December 31, 2012	CREDIT SUISSE SECURITIES (EUROPE) LTD	GBP / USD	4,876.39
January 7, 2013	CREDIT SUISSE SECURITIES (EUROPE) LTD	USD / GBP	-73,981.57
March 4, 2013	CREDIT SUISSE INTERNATIONAL	NZD / USD	63,363.30
March 11, 2013	CREDIT SUISSE INTERNATIONAL	USD / NZD	-9,099,482.92
March 25, 2013	CREDIT SUISSE INTERNATIONAL	USD / NZD	-13,778,618.73
March 25, 2013	CREDIT SUISSE INTERNATIONAL	USD / NZD	-10,049,982.66
June 3, 2013	CREDIT SUISSE INTERNATIONAL	USD / CHF	-4,136,867.93
June 3, 2013	CREDIT SUISSE INTERNATIONAL	USD / CHF	-2,142,362.79
June 25, 2013	CREDIT SUISSE INTERNATIONAL	USD / ZAR	-1,550,644.62
July 1, 2013	CREDIT SUISSE INTERNATIONAL	JPY / USD	4,327,404.35
July 9, 2013	CREDIT SUISSE INTERNATIONAL	ZAR / USD	2,977,614.38
July 16, 2013	CREDIT SUISSE INTERNATIONAL	ILS / USD	102,672.34
August 6, 2013	CREDIT SUISSE INTERNATIONAL	ILS / USD	156,063.37
August 23, 2013	CREDIT SUISSE INTERNATIONAL	ILS / USD	5,899,146.32
September 16, 2013	CREDIT SUISSE INTERNATIONAL	JPY / USD	5,462,801.01
September 30, 2013	CREDIT SUISSE INTERNATIONAL	USD / JPY	-78,289.91
October 14, 2013	CREDIT SUISSE INTERNATIONAL	SEK / USD	8,201,906.51
October 21, 2013	CREDIT SUISSE INTERNATIONAL	USD / SEK	-8,272,061.84

## Bridgestone Master Pension Trust

Date	DEUTSCHE BANK	Currency Pair	\$US Value
July 29, 2011	DEUTSCHE BANK LONDON	JPY / USD	1,080,233.77
August 1, 2011	DEUTSCHE BANK LONDON	JPY / USD	7,788,474.84
August 8, 2011	DEUTSCHE BANK LONDON	JPY / USD	9,528,937.28
August 24, 2011	DEUTSCHE BANK LONDON	USD / NZD	-256,455.25
August 29, 2011	DEUTSCHE BANK LONDON	NZD / USD	6,543,622.16
September 12, 2011	DEUTSCHE BANK LONDON	NZD / USD	16,009,404.76
September 12, 2011	DEUTSCHE BANK LONDON	USD / NZD	-9,140,508.57
September 12, 2011	DEUTSCHE BANK LONDON	USD / NZD	9,403,615.77
September 13, 2011	DEUTSCHE BANK LONDON	ZAR / USD	4,140,780.83
September 19, 2011	DEUTSCHE BANK LONDON	USD / NZD	-17,986.54
September 19, 2011	DEUTSCHE BANK LONDON	USD / NZD	290,237.35
September 26, 2011	DEUTSCHE BANK LONDON	USD / NZD	-8,406,524.11
October 3, 2011	DEUTSCHE BANK LONDON	NZD / USD	-9,254,648.00
October 17, 2011	DEUTSCHE BANK LONDON	NZD / USD	-15,184,725.90
October 24, 2011	DEUTSCHE BANK LONDON	NZD / USD	55,527.75
October 24, 2011	DEUTSCHE BANK LONDON	USD / NZD	142,440.75
October 31, 2011	DEUTSCHE BANK LONDON	USD / NZD	15,528,205.92
January 3, 2012	DEUTSCHE BANK AG	USD / NOK	-57,829.37
January 3, 2012	DEUTSCHE BANK AG	USD / NOK	-5,086,786.33
January 10, 2012	DEUTSCHE BANK AG	USD / NOK	-4,528,108.35
March 13, 2012	DEUTSCHE BANK AG	PLN / USD	4,431,958.47
March 30, 2012	DEUTSCHE BANK AG	USD / PLN	-445,504.92
May 1, 2012	DEUTSCHE BANK AG	KRW / USD	1,624,430.20
May 29, 2012	DEUTSCHE BANK AG	TWD / USD	8,666,475.35
June 27, 2012	DEUTSCHE BANK AG	USD / AUD	-3,328,901.14
July 30, 2012	DEUTSCHE BANK AG	JPY / USD	103,146.99
August 6, 2012	DEUTSCHE BANK AG	JPY / USD	6,654,909.68
September 11, 2012	DEUTSCHE BANK AG	ILS / USD	21,452.19
October 1, 2012	DEUTSCHE BANK AG	CAD / USD	2,879,301.63
October 2, 2012	DEUTSCHE BANK AG	USD / ILS	-64,736.56
October 8, 2012	DEUTSCHE BANK AG	USD / CAD	-4,384,286.55
October 9, 2012	DEUTSCHE BANK AG	USD / ZAR	-3,136,832.07
October 30, 2012	DEUTSCHE BANK AG	ILS / USD	6,296,848.49
November 13, 2012	DEUTSCHE BANK AG	USD / ILS	-114,205.77
December 4, 2012	DEUTSCHE BANK AG	ILS / USD	1,967,488.20
January 7, 2013	DEUTSCHE BANK AG	USD / CHF	-93,207.65
January 7, 2013	DEUTSCHE BANK AG	USD / CHF	-18,424.77
January 15, 2013	DEUTSCHE BANK AG	ILS / USD	11,799.41
January 22, 2013	DEUTSCHE BANK AG	CHF / USD	-3,901,720.11
April 22, 2013	DEUTSCHE BANK AG	AUD / USD	70,591.14
April 29, 2013	DEUTSCHE BANK AG	AUD / USD	4,585,430.36
June 3, 2013	DEUTSCHE BANK AG	USD / AUD	-9,157,876.31
July 15, 2013	DEUTSCHE BANK AG	NZD / USD	6,514,416.15
July 29, 2013	DEUTSCHE BANK AG	USD / NZD	-10,962,310.06
August 20, 2013	DEUTSCHE BANK AG	USD / MXN	-2,971,368.11
September 3, 2013	DEUTSCHE BANK AG	SEK / USD	5,413,237.19
September 9, 2013	DEUTSCHE BANK AG	SEK / USD	2,766,794.21

## Bridgestone Master Pension Trust

Date	GOLDMAN SACHS & CO.	Currency Pair	\$US Value
July 30, 2009	GOLDMAN SACHS & CO NW YK DTC 005	NOK / USD	-10,160,494.82
July 31, 2009	GOLDMAN SACHS & CO NW YK DTC 005	USD / NOK	-1,608,914.72
August 3, 2009	GOLDMAN SACHS & CO NW YK DTC 005	USD / NOK	-3,048,589.28
August 3, 2009	GOLDMAN SACHS & CO NW YK DTC 005	USD / NOK	2,582,523.79
August 10, 2009	GOLDMAN SACHS & CO NW YK DTC 005	CAD / USD	5,777,626.00
August 10, 2009	GOLDMAN SACHS & CO NW YK DTC 005	USD / NOK	5,661,854.63
August 24, 2009	GOLDMAN SACHS & CO NW YK DTC 005	NZD / USD	254,747.15
September 14, 2009	GOLDMAN SACHS & CO NW YK DTC 005	JPY / USD	-7,950,197.72
September 28, 2009	GOLDMAN SACHS & CO NW YK DTC 005	SEK / USD	34,987.09
September 28, 2009	GOLDMAN SACHS & CO NW YK DTC 005	SEK / USD	-58,216.23
October 5, 2009	GOLDMAN SACHS & CO NW YK DTC 005	USD / SEK	-5,162,389.04
October 12, 2009	GOLDMAN SACHS & CO NW YK DTC 005	JPY / USD	13,049,612.28
January 25, 2010	GOLDMAN SACHS & CO NW YK DTC 005	USD / EUR	-10,526,856.00
February 1, 2010	GOLDMAN SACHS & CO NW YK DTC 005	EUR / USD	31,957.70
April 5, 2010	GOLDMAN SACHS & CO NW YK DTC 005	JPY / USD	-5,781,248.84
May 10, 2010	GOLDMAN SACHS & CO NW YK DTC 005	USD / NZD	5,718,425.25
May 12, 2010	GOLDMAN SACHS & CO NW YK DTC 005	USD / NZD	-230,681.52
May 17, 2010	GOLDMAN SACHS & CO NW YK DTC 005	JPY / USD	169,133.79
July 26, 2010	GOLDMAN SACHS & CO NW YK DTC 005	JPY / USD	15,652,916.24
August 2, 2010	GOLDMAN SACHS & CO NW YK DTC 005	USD / JPY	107,786.65
September 14, 2010	GOLDMAN SACHS & CO NW YK DTC 005	USD / CLP	-2,238,705.11
September 28, 2010	GOLDMAN SACHS & CO NW YK DTC 005	PLN / USD	-2,256,064.32
November 1, 2010	GOLDMAN SACHS & CO NEW YORK DTC 005	JPY / USD	35,057.27
January 3, 2011	GOLDMAN SACHS & CO NEW YORK DTC 005	USD / EUR	-13,362.40
January 31, 2011	GOLDMAN SACHS & CO NEW YORK DTC 005	USD / EUR	-8,890,226.10
April 8, 2011	GOLDMAN SACHS & CO NEW YORK DTC 005	USD / EUR	-15,839,876.75
April 29, 2011	GOLDMAN SACHS & CO NEW YORK DTC 005	EUR / USD	165,670.50
July 11, 2011	GOLDMAN SACHS & CO NEW YORK DTC 005	GBP / USD	68,302.92
August 2, 2011	GOLDMAN SACHS & CO NEW YORK DTC 005	USD / ILS	-93,300.88
August 15, 2011	GOLDMAN SACHS & CO NEW YORK DTC 005	EUR / USD	277,253.76
September 19, 2011	GOLDMAN SACHS & CO NEW YORK DTC 005	EUR / USD	50,352.19
September 26, 2011	GOLDMAN SACHS & CO NEW YORK DTC 005	EUR / USD	26,936.40
October 18, 2011	GOLDMAN SACHS & CO NEW YORK DTC 005	ILS / USD	4,215,460.53
January 31, 2012	GOLDMAN, SACHS AND CO.	RUB / USD	4,808,636.89
April 2, 2012	GOLDMAN, SACHS AND CO.	USD / EUR	-18,622.24
April 9, 2012	GOLDMAN, SACHS AND CO.	AUD / USD	6,627,051.45
May 21, 2012	GOLDMAN, SACHS AND CO.	EUR / USD	-9,950,102.40
May 21, 2012	GOLDMAN, SACHS AND CO.	EUR / USD	-3,560,995.20
June 5, 2012	GOLDMAN, SACHS AND CO.	USD / PLN	-4,376,046.07
October 1, 2012	GOLDMAN, SACHS AND CO.	EUR / USD	-8,505,950.72
October 3, 2012	GOLDMAN, SACHS AND CO.	SGD / USD	178,525.06
December 10, 2012	GOLDMAN, SACHS AND CO.	USD / EUR	-13,651,478.40
February 28, 2013	GOLDMAN, SACHS AND CO.	USD / PLN	-501,722.21
April 1, 2013	GOLDMAN, SACHS AND CO.	USD / EUR	-177,301.02
April 15, 2013	GOLDMAN, SACHS AND CO.	USD / EUR	-16,525,000.80
April 16, 2013	GOLDMAN, SACHS AND CO.	PLN / USD	4,856,299.37
July 2, 2013	GOLDMAN, SACHS AND CO.	SGD / USD	-63,818.72
August 20, 2013	GOLDMAN, SACHS AND CO.	ZAR / USD	2,987,001.51
August 20, 2013	GOLDMAN, SACHS AND CO.	ZAR / USD	1,538,416.23

## Bridgestone Master Pension Trust

Date	HSBC	Currency Pair	\$US Value
July 20, 2009	HSBC BANK USA NEW YORK	AUD / USD	10,030,709.30
July 30, 2009	HSBC BANK USA NEW YORK	USD / AUD	16,962,299.98
July 31, 2009	HSBC BANK USA NEW YORK	AUD / USD	-12,577,441.10
August 3, 2009	HSBC BANK USA NEW YORK	USD / AUD	-109,359.90
September 8, 2009	HSBC BANK USA NEW YORK	USD / AUD	-279,861.48
September 8, 2009	HSBC BANK USA NEW YORK	USD / AUD	213,351.19
September 14, 2009	HSBC BANK USA NEW YORK	USD / AUD	-5,190,478.80
September 21, 2009	HSBC BANK USA NEW YORK	EUR / USD	-104,228.00
September 28, 2009	HSBC BANK USA NEW YORK	USD / AUD	-9,547.12
September 30, 2009	HSBC BANK USA NEW YORK	USD / AUD	-1,594,135.40
October 26, 2009	HSBC BANK USA NEW YORK	GBP / USD	3,828,618.88
November 2, 2009	HSBC BANK USA NEW YORK	AUD / USD	10,058,035.20
November 2, 2009	HSBC BANK USA NEW YORK	USD / GBP	-4,000,554.90
November 23, 2009	HSBC BANK USA NEW YORK	USD / SEK	-30,297.51
February 1, 2010	HSBC BANK USA NEW YORK	USD / AUD	-15,912.00
February 1, 2010	HSBC BANK USA NEW YORK	CAD / USD	15,053,753.35
February 8, 2010	HSBC BANK USA NEW YORK	AUD / USD	108,612.50
May 3, 2010	HSBC BANK USA NEW YORK	USD / CHF	-108,550.66
June 21, 2010	HSBC BANK USA NEW YORK	USD / CAD	-48,090.13
September 7, 2010	HSBC BANK USA NEW YORK	USD / TWD	-6,788,290.54
October 5, 2010	HSBC BANK USA NEW YORK	USD / SGD	-2,279,576.13
October 11, 2010	HSBC BANK USA NEW YORK	USD / NOK	-7,856.94
October 25, 2010	HSBC BANK USA NEW YORK	USD / NOK	-6,740,272.74
November 1, 2010	HSBC BANK USA NEW YORK	USD / CHF	-65,418.02
November 2, 2010	HSBC BANK USA NEW YORK	TWD / USD	75,073.89
December 6, 2010	HSBC BANK USA NEW YORK	CHF / USD	118,938.70
December 15, 2010	HSBC BANK USA NEW YORK	BRL / USD	3,885,095.36
December 17, 2010	HSBC BANK USA NEW YORK	USD / INR	-59,755.83
April 4, 2011	HSBC BANK USA NEW YORK	USD / NOK	-35,256.51
April 12, 2011	HSBC BANK USA NEW YORK	KRW / USD	8,278,385.26
May 17, 2011	HSBC BANK USA NEW YORK	USD / ILS	-168,393.78
June 6, 2011	HSBC BANK USA NEW YORK	USD / NOK	-70,566.77
June 28, 2011	HSBC BANK USA NEW YORK	USD / PLN	-5,021,275.07
September 6, 2011	HSBC BANK USA NEW YORK	USD / MXN	-85,731.39
September 6, 2011	HSBC BANK USA NEW YORK	USD / MXN	-186,230.29
September 27, 2011	HSBC BANK USA NEW YORK	MXN / USD	8,110,900.70
October 3, 2011	HSBC BANK USA NEW YORK	AUD / USD	5,457,968.80
October 4, 2011	HSBC BANK USA NEW YORK	USD / CLP	-3,457,350.72
October 31, 2011	HSBC BANK USA NEW YORK	GBP / USD	25,834.08
November 3, 2011	HSBC BANK USA, N.A.	CLP / USD	3,832,269.84
December 27, 2011	HSBC BANK USA, N.A.	USD / GBP	-109,665.50
January 3, 2012	HSBC BANK USA, N.A.	USD / GBP	-3,621,408.38
February 7, 2012	HSBC BANK USA, N.A.	USD / BRL	-2,429,561.20
February 27, 2012	HSBC BANK USA, N.A.	AUD / USD	86,556.60
March 6, 2012	HSBC BANK USA, N.A.	USD / BRL	-4,091,190.54
November 5, 2012	HSBC BANK USA, N.A.	USD / CHF	-165,289.26
November 13, 2012	HSBC BANK USA, N.A.	MXN / USD	942,961.54
May 14, 2013	HSBC BANK USA, N.A.	USD / TWD	-6,473,800.37
July 1, 2013	HSBC BANK USA, N.A.	USD / NZD	-4,361,738.14
August 6, 2013	HSBC BANK USA, N.A.	USD / PLN	-2,972,700.02

## Bridgestone Master Pension Trust

Date	JPMORGAN CHASE	Currency Pair	\$US Value
July 31, 2009	CHASE MANHATTAN BANK NEW YORK	USD / NZD	-5,025,863.80
August 3, 2009	CHASE MANHATTAN BANK NEW YORK	JPY / USD	-7,631,814.60
August 10, 2009	CHASE MANHATTAN BANK NEW YORK	JPY / USD	150,791.04
August 31, 2009	CHASE MANHATTAN BANK NEW YORK	USD / JPY	5,209,798.31
September 14, 2009	CHASE MANHATTAN BANK NEW YORK	NZD / USD	-48,275.85
October 5, 2009	CHASE MANHATTAN BANK NEW YORK	NOK / USD	9,467,401.29
October 12, 2009	CHASE MANHATTAN BANK NEW YORK	USD / CAD	13,208,915.53
October 19, 2009	CHASE MANHATTAN BANK NEW YORK	CAD / USD	-5,215,643.06
November 2, 2009	CHASE MANHATTAN BANK NEW YORK	NZD / USD	8,074,851.79
November 30, 2009	CHASE MANHATTAN BANK NEW YORK	USD / NOK	-8,448.77
January 21, 2010	CHASE MANHATTAN BANK NEW YORK	USD / SEK	-194,420.61
February 1, 2010	CHASE MANHATTAN BANK NEW YORK	NOK / USD	-113,164.01
June 1, 2010	CHASE MANHATTAN BANK NEW YORK	USD / EUR	-9,121,638.00
July 30, 2010	CHASE MANHATTAN BANK NEW YORK	EUR / USD	-1,576,560.80
August 2, 2010	CHASE MANHATTAN BANK NEW YORK	CAD / USD	6,103,203.72
August 23, 2010	CHASE MANHATTAN BANK NEW YORK	AUD / USD	6,101,580.50
October 5, 2010	CHASE MANHATTAN BANK NEW YORK	USD / ZAR	-4,690,532.97
October 5, 2010	CHASE MANHATTAN BANK NEW YORK	TRY / USD	5,894,488.24
October 7, 2010	CHASE MANHATTAN BANK NEW YORK	BRL / USD	4,579,305.41
November 29, 2010	CHASE MANHATTAN BANK NEW YORK	USD / CAD	-3,377,761.64
December 7, 2010	CHASE MANHATTAN BANK NEW YORK	USD / BRL	-81,402.26
January 3, 2011	CHASE MANHATTAN BANK NEW YORK	USD / JPY	-22,329.68
February 1, 2011	CHASE MANHATTAN BANK NEW YORK	USD / CLP	-1,963,478.71
February 7, 2011	CHASE MANHATTAN BANK NEW YORK	USD / NZD	-13,198,923.13
March 9, 2011	CHASE MANHATTAN BANK NEW YORK	GBP / USD	153,832.76
March 9, 2011	CHASE MANHATTAN BANK NEW YORK	EUR / USD	123,955.26
August 1, 2011	CHASE MANHATTAN BANK NEW YORK	USD / AUD	-9,466,893.76
December 12, 2011	JPMORGAN CHASE BANK, N.A.	USD / SEK	-6,319,519.45
January 3, 2012	JPMORGAN CHASE BANK, N.A.	USD / JPY	-9,445,402.99
July 3, 2012	JPMORGAN CHASE BANK, N.A.	KRW / USD	8,894,782.99
August 7, 2012	JPMORGAN CHASE BANK, N.A.	USD / GBP	-1,141,380.59
August 7, 2012	JPMORGAN CHASE BANK, N.A.	USD / CAD	-54,195.18
September 10, 2012	JPMORGAN CHASE BANK, N.A.	EUR / USD	82,629.52
October 2, 2012	JPMORGAN CHASE BANK, N.A.	USD / BRL	-1,389,039.08
October 30, 2012	JPMORGAN CHASE BANK, N.A.	USD / AUD	-23,198.72
October 30, 2012	JPMORGAN CHASE BANK, N.A.	PLN / USD	3,226,904.99
November 27, 2012	JPMORGAN CHASE BANK, N.A.	USD / PLN	-3,385,988.14
November 29, 2012	JPMORGAN CHASE BANK, N.A.	USD / EUR	-92,342.30
December 3, 2012	JPMORGAN CHASE BANK, N.A.	NZD / USD	2,666,513.81
February 25, 2013	JPMORGAN CHASE BANK, N.A.	USD / AUD	-38,347.06
March 5, 2013	JPMORGAN CHASE BANK, N.A.	KRW / USD	3,299,660.63
April 1, 2013	JPMORGAN CHASE BANK, N.A.	USD / JPY	-6,729,625.94
April 1, 2013	JPMORGAN CHASE BANK, N.A.	USD / JPY	-9,253,017.59
April 26, 2013	JPMORGAN CHASE BANK, N.A.	USD / GBP	87,317.97
May 9, 2013	JPMORGAN CHASE BANK, N.A.	CAD / USD	89,955.48
May 28, 2013	JPMORGAN CHASE BANK, N.A.	USD / ILS	-6,486,158.98
July 2, 2013	JPMORGAN CHASE BANK, N.A.	BRL / USD	72,675.71
July 2, 2013	JPMORGAN CHASE BANK, N.A.	USD / AUD	170,088.98

## Bridgestone Master Pension Trust

Date	MORGAN STANLEY	Currency Pair	\$US Value
November 14, 2011	MORGAN STANLEY CAPITAL SERVICES LLC	USD / CHF	-58,427.96
November 21, 2011	MORGAN STANLEY CAPITAL SERVICES LLC	CHF / USD	6,253,199.58
January 3, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / SEK	-2,488.56
February 28, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	ZAR / USD	4,467,513.61
March 6, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	ZAR / USD	4,520,173.14
March 12, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / SEK	-16,599,457.54
March 13, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / ZAR	-57,588.16
March 20, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	ZAR / USD	41,620.31
March 30, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / SEK	-1,654,769.61
April 16, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	SEK / USD	3,609,382.40
April 24, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	RUB / USD	8,880,730.52
May 17, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / RUB	-4,116,183.40
May 29, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / RUB	-1,472,994.74
May 29, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / SEK	-9,713,696.65
June 5, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / RUB	-4,207,676.04
June 27, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / NZD	1,328,938.11
July 2, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / NZD	-1,065,838.18
July 3, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / SGD	-4,407,622.65
July 30, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	AUD / USD	-1,053,060.68
September 5, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	PLN / USD	1,734,044.98
October 2, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / PLN	-698,109.86
October 30, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / TWD	-3,238,540.60
November 6, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	TWD / USD	3,238,318.72
November 19, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / AUD	-2,627,980.76
December 3, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	AUD / USD	2,683,656.19
December 10, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / AUD	-22,875,102.25
December 10, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / AUD	6,718,400.00
December 17, 2012	MORGAN STANLEY CAPITAL SERVICES LLC	USD / AUD	-15,780.68
January 22, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	NOK / USD	3,956,782.10
January 28, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	USD / NOK	-22,803,913.95
February 11, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	USD / NOK	-13,182,073.06
February 12, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	BRL / USD	3,271,279.29
February 19, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	USD / SEK	8,927,872.64
February 20, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	USD / BRL	-2,582,568.81
February 20, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	USD / SEK	3,575,927.44
February 25, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	SEK / USD	-8,798,202.28
February 28, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	USD / BRL	-1,023,765.07
March 26, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	BRL / USD	3,254,670.11
May 28, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	NZD / USD	8,824,502.06
June 10, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	USD / JPY	-8,552,821.91
July 1, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	USD / NOK	-88,269.38
August 12, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	USD / NOK	-45,933.60
August 26, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	USD / NOK	-5,452,077.47
September 30, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	NOK / USD	196,996.91
October 21, 2013	MORGAN STANLEY CAPITAL SERVICES LLC	USD / NOK	-157,496.30

## Bridgestone Master Pension Trust

Date	UBS	Currency Pair	\$US Value
July 31, 2009	UNION BANK OF SWIT NEW YK DTC 642	USD / CHF	-12,575,573.23
August 3, 2009	UNION BANK OF SWIT NEW YK DTC 642	CHF / USD	-8,836,545.19
August 17, 2009	UNION BANK OF SWIT NEW YK DTC 642	CHF / USD	2,528,373.56
August 31, 2009	UNION BANK OF SWIT NEW YK DTC 642	CHF / USD	-12,793,679.33
September 8, 2009	UNION BANK OF SWIT NEW YK DTC 642	CHF / USD	-2,873.37
September 28, 2009	UNION BANK OF SWIT NEW YK DTC 642	CHF / USD	6,786.69
October 19, 2009	UNION BANK OF SWIT NEW YK DTC 642	CHF / USD	-8,029,276.39
January 19, 2010	UNION BANK OF SWIT NEW YK DTC 642	JPY / USD	7,104,176.96
February 1, 2010	UNION BANK OF SWIT NEW YK DTC 642	USD / CHF	-13,214.03
March 8, 2010	UNION BANK OF SWIT NEW YK DTC 642	CAD / USD	43,806.28
May 3, 2010	UNION BANK OF SWIT NEW YK DTC 642	CAD / USD	105,478.99
July 6, 2010	UNION BANK OF SWIT NEW YK DTC 642	USD / NOK	-206,998.99
September 13, 2010	UNION BANK OF SWIT NEW YK DTC 642	EUR / USD	93,943.70
September 21, 2010	UNION BANK OF SWIT NEW YK DTC 642	ILS / USD	3,466,346.93
October 12, 2010	UNION BANK OF SWIT NEW YK DTC 642	BRL / USD	2,938,301.04
October 25, 2010	UNION BANK OF SWIT NEW YK DTC 642	EUR / USD	36,322.10
November 1, 2010	UNION BANK OF SWIT NEW YK DTC 642	USD / EUR	22,219.52
November 22, 2010	UNION BANK OF SWIT NEW YK DTC 642	EUR / USD	44,904.75
November 23, 2010	UNION BANK OF SWIT NEW YK DTC 642	SGD / USD	2,250,154.36
December 20, 2010	UNION BANK OF SWIT NEW YK DTC 642	USD / GBP	-2,807,222.88
June 6, 2011	UNION BANK OF SWIT NEW YK DTC 642	CAD / USD	119,300.11
October 18, 2011	UNION BANK OF SWIT NEW YK DTC 642	TRY / USD	235,892.96
October 31, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / AUD	41,236.65
November 7, 2011	UBS AG STAMFORD BRANCH	AUD / USD	187,723.90
December 27, 2011	UBS AG STAMFORD BRANCH	USD / CAD	-9,307,174.95
January 3, 2012	UBS AG STAMFORD BRANCH	CLP / USD	2,427,132.60
January 4, 2012	UBS AG STAMFORD BRANCH	USD / CAD	-1,999,897.34
January 17, 2012	UBS AG STAMFORD BRANCH	USD / CAD	-6,396,374.21
March 13, 2012	UBS AG STAMFORD BRANCH	USD / SGD	-4,439,746.30
April 17, 2012	UBS AG STAMFORD BRANCH	USD / TRY	-36,115.12
July 16, 2012	UBS AG STAMFORD BRANCH	CHF / USD	6,752,290.21
August 27, 2012	UBS AG STAMFORD BRANCH	USD / GBP	-2,526,004.26
September 5, 2012	UBS AG STAMFORD BRANCH	USD / BRL	-3,102,689.49
October 29, 2012	UBS AG STAMFORD BRANCH	NOK / USD	13,345,018.09
November 19, 2012	UBS AG STAMFORD BRANCH	NOK / USD	4,001,107.36
November 26, 2012	UBS AG STAMFORD BRANCH	USD / NOK	-285,785.02
January 15, 2013	UBS AG STAMFORD BRANCH	TRY / USD	3,258,591.55
February 25, 2013	UBS AG STAMFORD BRANCH	USD / CHF	-31,281.69
February 28, 2013	UBS AG STAMFORD BRANCH	USD / CHF	-2,187,064.25
March 4, 2013	UBS AG STAMFORD BRANCH	CHF / USD	4,241,626.13
April 1, 2013	UBS AG STAMFORD BRANCH	CAD / USD	6,651,987.14
May 13, 2013	UBS AG STAMFORD BRANCH	USD / SEK	-8,944,845.40
May 28, 2013	UBS AG STAMFORD BRANCH	USD / SEK	-6,565,551.63
May 28, 2013	UBS AG STAMFORD BRANCH	USD / PLN	3,216,554.17
June 11, 2013	UBS AG STAMFORD BRANCH	PLN / USD	158,302.35
July 16, 2013	UBS AG STAMFORD BRANCH	USD / ZAR	-6,111,192.80
July 23, 2013	UBS AG STAMFORD BRANCH	ZAR / USD	1,579,638.00

# Appendix 2

## Caterpillar Inc. Retirement Master Trust

Date	DEUTSCHE BANK	Currency Pair	\$US Value
December 8, 2005	DEUTSCHE BANK LONDON	JPY / USD	29,270,583.49
March 8, 2006	DEUTSCHE BANK LONDON	JPY / USD	225,841.16
March 24, 2006	DEUTSCHE BANK LONDON	EUR / USD	161,440.96
April 10, 2006	DEUTSCHE BANK LONDON	USD / AUD	-237,373.97
May 26, 2006	DEUTSCHE BANK LONDON	USD / CHF	-1,551,929.72
September 21, 2006	DEUTSCHE BANK LONDON	EUR / USD	10,712,747.03
September 26, 2006	DEUTSCHE BANK LONDON	USD / GBP	-223,634.53
October 20, 2006	DEUTSCHE BANK LONDON	NOK / USD	143,957.26
December 2, 2011	DEUTSCHE BANK AG	USD / TRY	-2,133.29
December 5, 2011	DEUTSCHE BANK AG	USD / HKD	-302,348.64
January 9, 2012	DEUTSCHE BANK AG	USD / ILS	-23,903.08
February 8, 2012	DEUTSCHE BANK AG	NOK / USD	103,121.44
February 15, 2012	DEUTSCHE BANK AG	GBP / USD	40,343.79
March 1, 2012	DEUTSCHE BANK AG	JPY / USD	1,877,671.85
March 2, 2012	DEUTSCHE BANK AG	GBP / USD	111,818.90
March 9, 2012	DEUTSCHE BANK AG	USD / PLN	-43,677.59
March 13, 2012	DEUTSCHE BANK AG	USD / SGD	-318,108.22
April 26, 2012	DEUTSCHE BANK AG	USD / DKK	-18,802.98
April 26, 2012	DEUTSCHE BANK AG	DKK / USD	-125,983.04
May 2, 2012	DEUTSCHE BANK AG	USD / NOK	-47,000.27
May 10, 2012	DEUTSCHE BANK AG	HKD / USD	150,646.04
May 23, 2012	DEUTSCHE BANK AG	USD / SGD	-13,428.18
May 24, 2012	DEUTSCHE BANK AG	USD / SGD	-8,976.42
May 31, 2012	DEUTSCHE BANK AG	USD / HKD	-32,978.07
June 4, 2012	DEUTSCHE BANK AG	ZAR / USD	182,772.00
June 8, 2012	DEUTSCHE BANK AG	MXN / USD	7,079.95
June 15, 2012	DEUTSCHE BANK AG	GBP / USD	95,297.22
June 29, 2012	DEUTSCHE BANK AG	SEK / USD	71,693.24
July 2, 2012	DEUTSCHE BANK AG	USD / NOK	-359,287.36
July 31, 2012	DEUTSCHE BANK AG	USD / AUD	-26,431.52
August 3, 2012	DEUTSCHE BANK AG	EUR / USD	308,550.67
August 3, 2012	DEUTSCHE BANK AG	CHF / USD	49,681.39
August 6, 2012	DEUTSCHE BANK AG	EUR / USD	49,181.15
August 6, 2012	DEUTSCHE BANK AG	EUR / USD	162,634.29
August 16, 2012	DEUTSCHE BANK AG	USD / JPY	-56,974.97
August 20, 2012	DEUTSCHE BANK AG	EUR / USD	563,095.90
September 25, 2012	DEUTSCHE BANK AG	SEK / USD	-1,729,454.37
November 6, 2012	DEUTSCHE BANK AG	DKK / USD	117,680.27
November 8, 2012	DEUTSCHE BANK AG	USD / DKK	-338,249.70
February 11, 2013	DEUTSCHE BANK AG	USD / NZD	-71,340.18
February 28, 2013	DEUTSCHE BANK AG	USD / SGD	-97,911.30
March 1, 2013	DEUTSCHE BANK AG	USD / DKK	-1,376,039.96
March 1, 2013	DEUTSCHE BANK AG	EUR / USD	3,070,069.87
July 1, 2013	DEUTSCHE BANK AG	USD / JPY	-1,318,053.21
July 1, 2013	DEUTSCHE BANK AG	USD / NOK	-149,855.76
August 1, 2013	DEUTSCHE BANK AG	HKD / USD	83,564.81
August 16, 2013	DEUTSCHE BANK AG	USD / AUD	-12,559.06
October 2, 2013	DEUTSCHE BANK AG	USD / SEK	-503,571.40
October 4, 2013	DEUTSCHE BANK AG	GBP / USD	3,820,395.71
December 3, 2013	DEUTSCHE BANK AG	CHF / USD	73,742.95

## Caterpillar Inc. Retirement Master Trust

Date	MORGAN STANLEY	Currency Pair	\$US Value
December 6, 2007	MORGAN STANLEY & CO INC	BRL / USD	73,072.12
December 6, 2007	MORGAN STANLEY & CO INC	USD / JPY	-117,770.27
December 7, 2007	MORGAN STANLEY & CO INC	HKD / USD	-33,091.01
December 11, 2007	MORGAN STANLEY & CO INC	AUD / USD	-12,452,495.46
December 11, 2007	MORGAN STANLEY & CO INC	USD / SEK	2,091,533.54
December 13, 2007	MORGAN STANLEY & CO INC	HKD / USD	100,337.72
December 13, 2007	MORGAN STANLEY & CO INC	DKK / USD	-64,675.75
January 8, 2008	MORGAN STANLEY & CO INC	USD / NOK	-9,982.33
February 1, 2008	MORGAN STANLEY & CO INC	AUD / USD	6,016,613.79
February 1, 2008	MORGAN STANLEY & CO INC	JPY / USD	5,203,032.32
February 1, 2008	MORGAN STANLEY & CO INC	USD / SGD	-5,015.95
February 1, 2008	MORGAN STANLEY & CO INC	USD / TRY	-238,732.13
February 1, 2008	MORGAN STANLEY & CO INC	AUD / USD	-6,016,613.79
March 5, 2008	MORGAN STANLEY & CO INC	USD / CHF	-2,229,889.74
March 5, 2008	MORGAN STANLEY & CO INC	GBP / USD	-99,070.99
March 5, 2008	MORGAN STANLEY & CO INC	USD / EUR	1,394,541.80
March 10, 2008	MORGAN STANLEY & CO INC	EUR / USD	8,452,926.71
March 10, 2008	MORGAN STANLEY & CO INC	USD / JPY	-12,938,118.12
March 10, 2008	MORGAN STANLEY & CO INC	NOK / USD	1,879,788.97
March 10, 2008	MORGAN STANLEY & CO INC	CHF / USD	17,227,203.96
March 10, 2008	MORGAN STANLEY & CO INC	AUD / USD	-14,665,042.98
March 10, 2008	MORGAN STANLEY & CO INC	SGD / USD	-20,722.71
March 10, 2008	MORGAN STANLEY & CO INC	USD / GBP	35,741,830.05
March 13, 2008	MORGAN STANLEY & CO INC	BRL / USD	-174,711.53
March 19, 2008	MORGAN STANLEY & CO INC	CHF / USD	-1,642,106.15
March 19, 2008	MORGAN STANLEY & CO INC	SEK / USD	-168,083.24
March 27, 2008	MORGAN STANLEY & CO INC	JPY / USD	192,690.59
April 2, 2008	MORGAN STANLEY & CO INC	NZD / USD	9,932.90
April 2, 2008	MORGAN STANLEY & CO INC	SGD / USD	1,027,518.91
April 2, 2008	MORGAN STANLEY & CO INC	NZD / USD	-9,932.90
April 17, 2008	MORGAN STANLEY & CO INC	NZD / USD	14,765.67
May 6, 2008	MORGAN STANLEY & CO INC	GBP / USD	3,640,063.02
May 6, 2008	MORGAN STANLEY & CO INC	USD / EUR	2,662,383.45
May 21, 2008	MORGAN STANLEY & CO INC	USD / CZK	-101,266.06
May 29, 2008	MORGAN STANLEY & CO INC	USD / DKK	-3,239,381.77
June 5, 2008	MORGAN STANLEY & CO INC	EUR / USD	3,108,681.15
June 5, 2008	MORGAN STANLEY & CO INC	USD / EUR	1,156,109.36
June 17, 2008	MORGAN STANLEY & CO INC	USD / CHF	-11,389,987.54
June 17, 2008	MORGAN STANLEY & CO INC	HKD / USD	-3,747,385.79
June 23, 2008	MORGAN STANLEY & CO INC	USD / SGD	-257,700.61
June 30, 2008	MORGAN STANLEY & CO INC	SEK / USD	14,798.99
July 9, 2008	MORGAN STANLEY & CO INC	EUR / USD	-144,897.89
July 14, 2008	MORGAN STANLEY & CO INC	CZK / USD	1,701,557.97
August 7, 2008	MORGAN STANLEY & CO INC	EUR / USD	-14,312,596.85
August 13, 2008	MORGAN STANLEY & CO INC	USD / JPY	-34,864.91
August 27, 2008	MORGAN STANLEY & CO INC	USD / EUR	3,068,170.44
September 10, 2008	MORGAN STANLEY & CO INC	USD / SEK	-101,756.67
September 12, 2008	MORGAN STANLEY & CO INC	USD / EUR	-17,496,712.56
September 12, 2008	MORGAN STANLEY & CO INC	USD / SEK	-4,511,843.95

## Caterpillar Inc. Retirement Master Trust

Date	RBS	Currency Pair	\$US Value
December 11, 2008	RBS FIN MKTS TREAS	USD / AUD	-7,588,581.77
December 11, 2008	RBS FIN MKTS TREAS	USD / GBP	-9,404,336.76
December 16, 2008	RBS FIN MKTS TREAS	USD / NZD	-101,599.33
April 22, 2009	RBS FIN MKTS TREAS	USD / AUD	-81,448.98
May 7, 2009	RBS FIN MKTS TREAS	USD / CZK	-13,063.68
June 4, 2009	RBS FIN MKTS TREAS	GBP / USD	1,513,505.82
June 12, 2009	RBS FIN MKTS TREAS	USD / GBP	-193,676.29
September 4, 2009	RBS FIN MKTS TREAS	DKK / USD	3,987,780.05
September 4, 2009	RBS FIN MKTS TREAS	EUR / USD	1,094,635.74
October 1, 2009	RBS FIN MKTS TREAS	USD / NZD	-37,214.01
November 4, 2009	RBS FIN MKTS TREAS	USD / JPY	-66,639.72
November 18, 2009	RBS FIN MKTS TREAS	GBP / USD	59,573.25
December 8, 2009	RBS FIN MKTS TREAS	USD / DKK	-4,135,677.40
February 1, 2010	RBS FIN MKTS TREAS	EUR / USD	125,146.59
March 17, 2010	RBS FIN MKTS TREAS	HUF / USD	2,971,893.88
April 1, 2010	RBS FIN MKTS TREAS	GBP / USD	214,326.29
May 11, 2010	RBS FIN MKTS TREAS	USD / SEK	-1,168,418.12
August 6, 2010	RBS FIN MKTS TREAS	USD / HKD	-208,187.95
September 2, 2010	RBS FIN MKTS TREAS	AUD / USD	10,369,726.25
December 10, 2010	RBS FIN MKTS TREAS	USD / NZD	-1,055,825.22
February 1, 2011	RBS FIN MKTS TREAS	AUD / USD	18,040.63
February 2, 2011	RBS FIN MKTS TREAS	USD / CHF	-1,627,361.01
February 3, 2011	RBS FIN MKTS TREAS	USD / SEK	-40,243.42
February 7, 2011	RBS FIN MKTS TREAS	ILS / USD	169,284.53
February 24, 2011	RBS FIN MKTS TREAS	PLN / USD	59,341.19
March 30, 2011	RBS FIN MKTS TREAS	SGD / USD	102,876.77
July 6, 2011	RBS FIN MKTS TREAS	JPY / USD	3,366,042.70
August 1, 2011	RBS FIN MKTS TREAS	USD / GBP	-107,126.64
November 1, 2011	RBS FIN MKTS TREAS	USD / DKK	-282,020.02
November 1, 2011	RBS FIN MKTS TREAS	EUR / USD	1,872,083.89
January 13, 2012	RBS FIN MKTS TREAS	CHF / USD	112,304.80
February 8, 2012	RBS FIN MKTS TREAS	NOK / USD	236,198.02
February 29, 2012	RBS FIN MKTS TREAS	USD / TRY	-8,054.55
March 9, 2012	RBS FIN MKTS TREAS	USD / EUR	-1,797,465.34
March 30, 2012	RBS FIN MKTS TREAS	EUR / USD	-1,356,593.63
April 2, 2012	RBS FIN MKTS TREAS	USD / GBP	-1,221,362.37
April 2, 2012	RBS FIN MKTS TREAS	USD / NOK	-2,199,189.33
April 4, 2012	RBS FIN MKTS TREAS	CHF / USD	1,182,320.26
May 2, 2012	RBS FIN MKTS TREAS	USD / HKD	-1,387.24
May 31, 2012	RBS FIN MKTS TREAS	SEK / USD	79,077.83
May 31, 2012	RBS FIN MKTS TREAS	MXN / USD	14,370.79
June 4, 2012	RBS FIN MKTS TREAS	ILS / USD	1,617,161.66
June 4, 2012	RBS FIN MKTS TREAS	GBP / USD	639.89
June 12, 2012	RBS PLC	USD / DKK	-3,500,603.04
June 12, 2012	RBS PLC	USD / SGD	-501,213.08
June 22, 2012	RBS FIN MKTS TREAS	NZD / USD	55,962.11
July 17, 2012	RBS FIN MKTS TREAS	USD / DKK	-75,040.33
July 19, 2012	RBS FIN MKTS TREAS	USD / SGD	-63,666.76
July 26, 2012	RBS FIN MKTS TREAS	USD / NOK	85,281.97
August 1, 2012	RBS FIN MKTS TREAS	EUR / USD	1,277,388.32
August 15, 2012	RBS FIN MKTS TREAS	GBP / USD	9,825.08

## Caterpillar Inc. Retirement Master Trust

Date	RBS	Currency Pair	\$US Value
September 4, 2012	RBS FIN MKTS TREAS	JPY / USD	16,023,144.11
September 4, 2012	RBS FIN MKTS TREAS	AUD / USD	11,629,574.00

## Caterpillar Inc. Retirement Master Trust

Date	UBS	Currency Pair	\$US Value
December 6, 2007	UNION BANK OF SWIT NEW YK DTC 642	HKD / USD	8,455,833.46
December 6, 2007	UNION BANK OF SWIT NEW YK DTC 642	SGD / USD	1,048,922.21
February 12, 2008	UNION BANK OF SWIT NEW YK DTC 642	USD / EUR	-56,133.62
March 4, 2008	UNION BANK OF SWIT NEW YK DTC 642	USD / SEK	-129,225.77
May 30, 2008	UNION BANK OF SWIT NEW YK DTC 642	NZD / USD	218,532.82
June 3, 2008	UNION BANK OF SWIT NEW YK DTC 642	USD / NOK	-291,203.70
June 4, 2008	UNION BANK OF SWIT NEW YK DTC 642	JPY / USD	134,911.05
July 24, 2008	UNION BANK OF SWIT NEW YK DTC 642	ILS / USD	75,574.29
September 3, 2008	UNION BANK OF SWIT NEW YK DTC 642	USD / HKD	-44,224.64
February 6, 2009	UNION BANK OF SWIT NEW YK DTC 642	DKK / USD	80,402.97
March 4, 2009	UNION BANK OF SWIT NEW YK DTC 642	GBP / USD	7,190.12
March 4, 2009	UNION BANK OF SWIT NEW YK DTC 642	USD / SGD	-41,976.36
March 16, 2009	UNION BANK OF SWIT NEW YK DTC 642	USD / DKK	-46,567.60
April 1, 2009	UNION BANK OF SWIT NEW YK DTC 642	USD / GBP	-136,590.99
July 1, 2009	UNION BANK OF SWIT NEW YK DTC 642	JPY / USD	14,248.24
October 1, 2009	UNION BANK OF SWIT NEW YK DTC 642	EUR / USD	5,975.66
November 6, 2009	UNION BANK OF SWIT NEW YK DTC 642	HKD / USD	110,328.36
November 9, 2009	UNION BANK OF SWIT NEW YK DTC 642	USD / EUR	-49,327.63
December 9, 2009	UNION BANK OF SWIT NEW YK DTC 642	AUD / USD	23,063.03
February 17, 2010	UNION BANK OF SWIT NEW YK DTC 642	EUR / USD	10,829,047.12
March 2, 2010	UNION BANK OF SWIT NEW YK DTC 642	USD / GBP	-9,107.92
March 9, 2010	UNION BANK OF SWIT NEW YK DTC 642	JPY / USD	1,042,671.73
March 15, 2010	UNION BANK OF SWIT NEW YK DTC 642	USD / HKD	-62,078.56
June 7, 2010	UNION BANK OF SWIT NEW YK DTC 642	EUR / USD	50,145.89
July 16, 2010	UNION BANK OF SWIT NEW YK DTC 642	NOK / USD	61,288.45
July 27, 2010	UNION BANK OF SWIT NEW YK DTC 642	EUR / USD	290,735.82
August 2, 2010	UNION BANK OF SWIT NEW YK DTC 642	USD / SEK	-145,927.84
January 13, 2011	UNION BANK OF SWIT NEW YK DTC 642	GBP / USD	1,111,361.48
February 28, 2011	UNION BANK OF SWIT NEW YK DTC 642	PLN / USD	37,002.19
March 9, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / EUR	-8,895,251.72
July 8, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / NOK	-11,911.06
August 1, 2011	UNION BANK OF SWIT NEW YK DTC 642	DKK / USD	199,113.76
August 1, 2011	UNION BANK OF SWIT NEW YK DTC 642	HKD / USD	7,866.41
October 26, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / ILS	-17,373.10
November 1, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / AUD	-99,339.82
November 1, 2011	UNION BANK OF SWIT NEW YK DTC 642	JPY / USD	156,849.10
December 1, 2011	UBS AG STAMFORD BRANCH	HKD / USD	6,105,596.55
December 20, 2011	UBS AG STAMFORD BRANCH	USD / JPY	-204,728.97
January 24, 2012	UBS AG STAMFORD BRANCH	USD / ILS	-74,349.67
February 8, 2012	UBS AG STAMFORD BRANCH	HKD / USD	2,490,847.70
March 7, 2012	UBS AG STAMFORD BRANCH	USD / DKK	-5,528.23
March 7, 2012	UBS AG STAMFORD BRANCH	USD / ZAR	-291,648.26
March 16, 2012	UBS AG STAMFORD BRANCH	USD / PLN	-65,237.35
March 22, 2012	UBS AG STAMFORD BRANCH	JPY / USD	-3,099,015.75
April 16, 2012	UBS AG STAMFORD BRANCH	USD / GBP	-134,764.67
May 8, 2012	UBS AG STAMFORD BRANCH	USD / GBP	-163,620.82
May 9, 2012	UBS AG STAMFORD BRANCH	USD / EUR	-241,900.36
June 6, 2012	UBS AG STAMFORD BRANCH	USD / JPY	-1,795,950.87
June 15, 2012	UBS AG STAMFORD BRANCH	MXN / USD	8,198.59
July 30, 2012	UBS AG STAMFORD BRANCH	USD / ZAR	-7,972.93

## Caterpillar Inc. Retirement Master Trust

Date	UBS	Currency Pair	\$US Value
August 1, 2012	UBS AG STAMFORD BRANCH	EUR / USD	159,538.30
September 4, 2012	UBS AG STAMFORD BRANCH	AUD / USD	3,828,205.41
September 4, 2012	UBS AG STAMFORD BRANCH	DKK / USD	3,522,354.03
September 4, 2012	UBS AG STAMFORD BRANCH	USD / EUR	-8,029,106.85
September 14, 2012	UBS AG STAMFORD BRANCH	USD / EUR	-3,801,949.98
November 2, 2012	UBS AG STAMFORD BRANCH	DKK / USD	37,578.73

# Appendix 3

## Caterpillar Inc. Group Insurance Master Trust

Date	BANK OF AMERICA	Currency Pair	\$US Value
May 17, 2011	BANK OF AMERICA SAN FRANCISCO	USD / JPY	-9,600,000.00
May 17, 2011	BANK OF AMERICA SAN FRANCISCO	USD / GBP	-8,200,000.00
May 17, 2011	BANK OF AMERICA SAN FRANCISCO	USD / EUR	-4,600,000.00
May 17, 2011	BANK OF AMERICA SAN FRANCISCO	USD / CHF	-3,400,000.00
May 17, 2011	BANK OF AMERICA SAN FRANCISCO	USD / EUR	-2,500,000.00
May 17, 2011	BANK OF AMERICA SAN FRANCISCO	USD / HKD	-2,300,000.00
May 17, 2011	BANK OF AMERICA SAN FRANCISCO	USD / CAD	-2,200,000.00
May 17, 2011	BANK OF AMERICA SAN FRANCISCO	USD / AUD	-1,900,000.00
May 17, 2011	BANK OF AMERICA SAN FRANCISCO	USD / SEK	-1,500,000.00
May 17, 2011	BANK OF AMERICA SAN FRANCISCO	USD / SGD	-1,300,000.00
May 17, 2011	BANK OF AMERICA SAN FRANCISCO	USD / NOK	-970,000.00
May 17, 2011	BANK OF AMERICA SAN FRANCISCO	USD / DKK	-680,000.00

## Caterpillar Inc. Group Insurance Master Trust

Date	MORGAN STANLEY	Currency Pair	\$US Value
February 19, 2003	MORGAN STANLEY AND CO NW YK DTC 050	GBP / USD	525,049.80
April 1, 2003	MORGAN STANLEY AND CO NW YK DTC 050	USD / EUR	-368,505.60
April 1, 2003	MORGAN STANLEY AND CO NW YK DTC 050	JPY / USD	502,382.73
June 10, 2003	MORGAN STANLEY AND CO NW YK DTC 050	DKK / USD	40,912.67
June 10, 2003	MORGAN STANLEY AND CO NW YK DTC 050	EUR / USD	806,058.00
July 15, 2003	MORGAN STANLEY AND CO NW YK DTC 050	JPY / USD	1,164,581.16
July 30, 2003	MORGAN STANLEY AND CO NW YK DTC 050	USD / DKK	-76,559.60
August 26, 2003	MORGAN STANLEY AND CO NW YK DTC 050	SEK / USD	68,211.22
October 22, 2003	MORGAN STANLEY AND CO NW YK DTC 050	GBP / USD	253,635.00
November 12, 2003	MORGAN STANLEY AND CO NW YK DTC 050	CHF / USD	266,903.91

## Caterpillar Inc. Group Insurance Master Trust

Date	RBS	Currency Pair	\$US Value
February 9, 2009	RBS FIN MKTS TREAS	AUD / USD	46,531.87
February 19, 2009	RBS FIN MKTS TREAS	USD / ILS	-120,571.96
April 17, 2009	RBS FIN MKTS TREAS	USD / CZK	-21,798.05
June 4, 2009	RBS FIN MKTS TREAS	USD / NOK	-207,439.13
September 4, 2009	RBS FIN MKTS TREAS	EUR / USD	126,750.56
September 14, 2009	RBS FIN MKTS TREAS	USD / EUR	-1,898,388.70
September 29, 2009	RBS FIN MKTS TREAS	USD / NZD	-26,656.79
September 30, 2009	RBS FIN MKTS TREAS	USD / JPY	-121,280.33
October 1, 2009	RBS FIN MKTS TREAS	USD / GBP	-51,062.40
October 2, 2009	RBS FIN MKTS TREAS	HKD / USD	38,974.03
February 1, 2010	RBS FIN MKTS TREAS	HKD / USD	15,711.90
April 1, 2010	RBS FIN MKTS TREAS	GBP / USD	20,682.16
June 2, 2010	RBS FIN MKTS TREAS	EUR / USD	253,894.58
September 2, 2010	RBS FIN MKTS TREAS	AUD / USD	1,815,208.50
September 2, 2010	RBS FIN MKTS TREAS	DKK / USD	476,163.25
September 2, 2010	RBS FIN MKTS TREAS	JPY / USD	2,555,007.41
November 1, 2010	RBS FIN MKTS TREAS	USD / NZD	-6,407.47
November 1, 2010	RBS FIN MKTS TREAS	USD / NOK	-78,280.61
November 2, 2010	RBS FIN MKTS TREAS	USD / SGD	-10,957.30
December 8, 2010	RBS FIN MKTS TREAS	ILS / USD	322,230.06
February 1, 2011	RBS FIN MKTS TREAS	JPY / USD	34,459.62
February 1, 2011	RBS FIN MKTS TREAS	USD / SGD	-8,060.29
February 3, 2011	RBS FIN MKTS TREAS	EUR / USD	75,711.90
April 14, 2011	RBS FIN MKTS TREAS	USD / DKK	-18,094.53
May 2, 2011	RBS FIN MKTS TREAS	USD / NZD	-12,909.08
May 3, 2011	RBS FIN MKTS TREAS	USD / AUD	-21,014.83
May 6, 2011	RBS FIN MKTS TREAS	USD / HKD	-4,693.16
August 1, 2011	RBS FIN MKTS TREAS	USD / GBP	-29,748.78
August 1, 2011	RBS FIN MKTS TREAS	USD / ILS	-5,591.14
August 1, 2011	RBS FIN MKTS TREAS	USD / NOK	35,803.49
November 1, 2011	RBS FIN MKTS TREAS	CHF / USD	20,965.20
January 13, 2012	RBS FIN MKTS TREAS	NOK / USD	7,360.38
January 20, 2012	RBS FIN MKTS TREAS	USD / SEK	-3,301.11
May 31, 2012	RBS FIN MKTS TREAS	USD / GBP	18,447.85
June 4, 2012	RBS FIN MKTS TREAS	ILS / USD	195,780.60
June 12, 2012	RBS PLC	GBP / USD	2,145,849.38
July 2, 2012	RBS FIN MKTS TREAS	USD / ILS	53,401.84
August 1, 2012	RBS FIN MKTS TREAS	EUR / USD	256,151.60
August 1, 2012	RBS FIN MKTS TREAS	NZD / USD	74,090.18
September 4, 2012	RBS FIN MKTS TREAS	AUD / USD	2,035,743.38
September 4, 2012	RBS FIN MKTS TREAS	JPY / USD	2,748,036.48
September 4, 2012	RBS FIN MKTS TREAS	USD / NOK	-1,029,147.54
September 4, 2012	RBS FIN MKTS TREAS	SGD / USD	85,003.61
September 4, 2012	RBS FIN MKTS TREAS	USD / CHF	-1,882,863.27
September 4, 2012	RBS FIN MKTS TREAS	HKD / USD	5,697.84
September 4, 2012	RBS FIN MKTS TREAS	SGD / USD	-85,003.61
September 13, 2012	RBS FIN MKTS TREAS	DKK / USD	91,158.65
December 3, 2012	RBS FIN MKTS TREAS	GBP / USD	49,988.76
December 12, 2012	RBS FIN MKTS TREAS	AUD / USD	12,916.16

## Caterpillar Inc. Group Insurance Master Trust

Date	UBS	Currency Pair	\$US Value
March 19, 2009	UNION BANK OF SWIT NEW YK DTC 642	USD / CZK	-1,071.73
March 31, 2009	UNION BANK OF SWIT NEW YK DTC 642	USD / GBP	-6,131.48
April 1, 2009	UNION BANK OF SWIT NEW YK DTC 642	USD / GBP	-24,021.95
April 1, 2009	UNION BANK OF SWIT NEW YK DTC 642	JPY / USD	48,434.90
April 7, 2009	UNION BANK OF SWIT NEW YK DTC 642	DKK / USD	104,161.41
April 17, 2009	UNION BANK OF SWIT NEW YK DTC 642	USD / HKD	-104,177.77
July 31, 2009	UNION BANK OF SWIT NEW YK DTC 642	USD / AUD	-4,964.70
September 18, 2009	UNION BANK OF SWIT NEW YK DTC 642	USD / CAD	-86,144.86
December 1, 2009	UNION BANK OF SWIT NEW YK DTC 642	USD / EUR	-58,921.20
January 14, 2010	UNION BANK OF SWIT NEW YK DTC 642	USD / SGD	-1,313,918.57
March 1, 2010	UNION BANK OF SWIT NEW YK DTC 642	USD / GBP	-8,964.30
March 29, 2010	UNION BANK OF SWIT NEW YK DTC 642	USD / EUR	-5,099.04
April 1, 2010	UNION BANK OF SWIT NEW YK DTC 642	USD / HKD	-4,048.01
June 8, 2010	UNION BANK OF SWIT NEW YK DTC 642	AUD / USD	19,274.63
July 1, 2010	UNION BANK OF SWIT NEW YK DTC 642	EUR / USD	7,304.07
November 1, 2010	UNION BANK OF SWIT NEW YK DTC 642	USD / DKK	-115,999.54
January 7, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / SGD	5,406.39
January 12, 2011	UNION BANK OF SWIT NEW YK DTC 642	AUD / USD	4,345.59
February 1, 2011	UNION BANK OF SWIT NEW YK DTC 642	ILS / USD	5,185.88
February 3, 2011	UNION BANK OF SWIT NEW YK DTC 642	EUR / USD	27,620.01
February 23, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / EUR	-282,142.17
March 9, 2011	UNION BANK OF SWIT NEW YK DTC 642	DKK / USD	1,132,607.49
March 9, 2011	UNION BANK OF SWIT NEW YK DTC 642	SEK / USD	1,221,270.54
April 12, 2011	UNION BANK OF SWIT NEW YK DTC 642	HKD / USD	51,895.50
May 4, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / AUD	-20,465.61
June 10, 2011	UNION BANK OF SWIT NEW YK DTC 642	NZD / USD	133,687.08
July 8, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / GBP	-26,524.45
August 24, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / DKK	-42,926.12
October 27, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / EUR	-1,912,681.49
October 27, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / HKD	-241,549.34
October 27, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / TRY	-110,096.86
November 7, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / GBP	-1,396,435.71
November 7, 2011	UNION BANK OF SWIT NEW YK DTC 642	USD / EUR	-1,534,885.34
November 7, 2011	UNION BANK OF SWIT NEW YK DTC 642	CHF / USD	1,862,377.47
January 3, 2012	UBS AG STAMFORD BRANCH	USD / EUR	12,627.91
January 31, 2012	UBS AG STAMFORD BRANCH	USD / HKD	-28,750.50
March 5, 2012	UBS AG STAMFORD BRANCH	USD / EUR	3,894.24
March 6, 2012	UBS AG STAMFORD BRANCH	USD / AUD	-108,411.23
March 7, 2012	UBS AG STAMFORD BRANCH	USD / ZAR	-36,604.89
March 16, 2012	UBS AG STAMFORD BRANCH	USD / EUR	3,693.73
April 11, 2012	UBS AG STAMFORD BRANCH	USD / ILS	-5,271.97
June 6, 2012	UBS AG STAMFORD BRANCH	USD / JPY	-131,267.00
June 19, 2012	UBS AG STAMFORD BRANCH	USD / NOK	-16,779.24
September 4, 2012	UBS AG STAMFORD BRANCH	GBP / USD	1,384,834.29
September 4, 2012	UBS AG STAMFORD BRANCH	USD / EUR	-1,401,641.46
September 4, 2012	UBS AG STAMFORD BRANCH	SEK / USD	1,152,532.96
September 4, 2012	UBS AG STAMFORD BRANCH	CHF / USD	1,756,884.52
September 4, 2012	UBS AG STAMFORD BRANCH	USD / JPY	155,604.22
September 14, 2012	UBS AG STAMFORD BRANCH	DKK / USD	79,035.05

# Appendix 4

## HCA Inc. Master Retirement Trust

Date	BANK OF AMERICA	Currency Pair	\$US Value
April 23, 2003	BANK OF AMERICA SAN FRANCISCO	USD/GBP	471,981.96
July 23, 2003	BANK OF AMERICA SAN FRANCISCO	USD/GBP	-25,790.52
August 4, 2003	BANK OF AMERICA SAN FRANCISCO	USD/JPY	-144,191.48
August 14, 2003	BANK OF AMERICA SAN FRANCISCO	USD/EUR	-50,873.90
September 9, 2003	BANK OF AMERICA SAN FRANCISCO	USD/GBP	93,941.81
September 18, 2003	BANK OF AMERICA SAN FRANCISCO	USD/EUR	-192,650.94
September 29, 2003	BANK OF AMERICA SAN FRANCISCO	USD/GBP	295,235.74
October 30, 2003	BANK OF AMERICA SAN FRANCISCO	USD/AUD	36,023.32
November 13, 2003	BANK OF AMERICA SAN FRANCISCO	USD/GBP	-427,408.04
December 19, 2003	BANK OF AMERICA SAN FRANCISCO	EUR/USD	-35,358.13
January 2, 2004	BANK OF AMERICA SAN FRANCISCO	EUR/USD	8,484.22
February 18, 2004	BANK OF AMERICA SAN FRANCISCO	GBP/USD	29,645.69
March 17, 2004	BANK OF AMERICA SAN FRANCISCO	USD/CHF	-522,749.38
April 1, 2004	BANK OF AMERICA SAN FRANCISCO	AUD/USD	73,233.91
April 2, 2004	BANK OF AMERICA SAN FRANCISCO	AUD/USD	40,937.74
April 5, 2004	BANK OF AMERICA SAN FRANCISCO	NOK/USD	486,220.34
April 5, 2004	BANK OF AMERICA SAN FRANCISCO	USD/JPY	-300,149.86
April 5, 2004	BANK OF AMERICA SAN FRANCISCO	CHF/USD	59,812.06
April 8, 2004	BANK OF AMERICA SAN FRANCISCO	CHF/USD	11,038.01
April 14, 2004	BANK OF AMERICA SAN FRANCISCO	NOK/USD	-162,195.12
April 15, 2004	BANK OF AMERICA SAN FRANCISCO	CHF/USD	17,888.56
April 15, 2004	BANK OF AMERICA SAN FRANCISCO	NOK/USD	25,639.13
April 15, 2004	BANK OF AMERICA SAN FRANCISCO	AUD/USD	7,957.78
April 19, 2004	BANK OF AMERICA SAN FRANCISCO	USD/EUR	-1,477,173.65
April 21, 2004	BANK OF AMERICA SAN FRANCISCO	CHF/USD	5,719.39
April 21, 2004	BANK OF AMERICA SAN FRANCISCO	USD/NZD	-29,805.08
April 23, 2004	BANK OF AMERICA SAN FRANCISCO	USD/CHF	-197,208.51
April 23, 2004	BANK OF AMERICA SAN FRANCISCO	AUD/USD	5,334.76
May 3, 2004	BANK OF AMERICA SAN FRANCISCO	DKK/USD	420,624.10
May 12, 2004	BANK OF AMERICA SAN FRANCISCO	AUD/USD	35,559.46
May 17, 2004	BANK OF AMERICA SAN FRANCISCO	USD/NZD	-5,054.21
June 29, 2004	BANK OF AMERICA SAN FRANCISCO	JPY/USD	13,322.48
October 21, 2004	BANK OF AMERICA SAN FRANCISCO	USD/CAD	-106,526.15
November 19, 2004	BANK OF AMERICA SAN FRANCISCO	GBP/USD	521,987.73
February 7, 2007	BANK OF AMERICA	EUR/USD	1,002,054.90
March 1, 2007	BANK OF AMERICA	EUR/CHF	1,334,437.21
March 16, 2007	BANK OF AMERICA	CAD/USD	239,204.61
April 2, 2007	BANK OF AMERICA	EUR/CHF	1,684,214.19
May 10, 2007	BANK OF AMERICA	CHF/EUR	-604,285.28
May 23, 2007	BANK OF AMERICA	GBP/USD	336,379.00
August 8, 2007	BANK OF AMERICA	EUR/CHF	732,729.74
August 21, 2007	BANK OF AMERICA	USD/AUD	-463,188.00
December 5, 2007	BANK OF AMERICA	GBP/USD	264,099.81
December 10, 2007	BANK OF AMERICA	USD/CAD	-279,074.59
February 12, 2009	BANK OF AMERICA	USD/GBP	-56,796.00
February 20, 2009	BANK OF AMERICA	AUD/USD	196,726.00
February 20, 2009	BANK OF AMERICA	USD/NZD	195,107.64
June 2, 2009	BANK OF AMERICA	USD/AUD	-644,877.00

## HCA Inc. Master Retirement Trust

Date	BANK OF AMERICA	Currency Pair	\$US Value
June 5, 2009	BANK OF AMERICA	USD/GBP	-224,205.80
June 8, 2009	BANK OF AMERICA	CAD/USD	240,845.64
June 23, 2009	BANK OF AMERICA	USD/GBP	-228,648.00
July 3, 2009	BANK OF AMERICA	USD/EUR	-56,008.00
August 3, 2009	BANK OF AMERICA	USD/EUR	-3,009,262.55
December 9, 2009	BANK OF AMERICA	SGD/USD	7,184.94

## HCA Inc. Master Retirement Trust

Date	BARCLAYS	Currency Pair	\$US Value
January 3, 2007	BARCLAYS	EUR/USD	546,530.00
January 3, 2007	BARCLAYS	USD/GBP	-552,980.96
January 9, 2007	BARCLAYS	USD/EUR	-366,174.48
January 12, 2007	BARCLAYS	SEK/EUR	-300,098.05
January 15, 2007	BARCLAYS	USD/GBP	-766,385.10
January 25, 2007	BARCLAYS	AUD/USD	-116,594.40
January 29, 2007	BARCLAYS	USD/NZD	-201,129.21
February 7, 2007	BARCLAYS	NZD/USD	162,802.80
February 8, 2007	BARCLAYS	EUR/CHF	715,937.63
February 8, 2007	BARCLAYS	EUR/USD	-585,990.00
February 8, 2007	BARCLAYS	JPY/USD	202,346.37
February 8, 2007	BARCLAYS	USD/EUR	588,087.00
February 8, 2007	BARCLAYS	USD/JPY	-199,966.67
February 9, 2007	BARCLAYS	CHF/EUR	881,677.01
February 9, 2007	BARCLAYS	EUR/CHF	-874,330.61
February 12, 2007	BARCLAYS	EUR/SEK	243,378.44
February 23, 2007	BARCLAYS	USD/EUR	92,581.65
February 26, 2007	BARCLAYS	CHF/EUR	-582,191.31
February 26, 2007	BARCLAYS	EUR/CHF	-577,931.49
February 28, 2007	BARCLAYS	USD/JPY	8,011,847.89
March 6, 2007	BARCLAYS	AUD/USD	-123,447.20
March 6, 2007	BARCLAYS	CHF/EUR	-709,487.01
March 6, 2007	BARCLAYS	EUR/CHF	704,260.66
March 6, 2007	BARCLAYS	USD/NZD	-121,634.10
March 12, 2007	BARCLAYS	JPY/USD	-205,732.92
March 15, 2007	BARCLAYS	JPY/USD	1,294,748.67
March 20, 2007	BARCLAYS	USD/EUR	226,712.17
March 28, 2007	BARCLAYS	EUR/USD	-214,374.40
March 28, 2007	BARCLAYS	USD/GBP	216,152.31
April 2, 2007	BARCLAYS	EUR/USD	-965,412.00
April 9, 2007	BARCLAYS	EUR/USD	294,752.70
April 9, 2007	BARCLAYS	USD/GBP	294,014.55
April 13, 2007	BARCLAYS	EUR/CHF	-446,845.21
April 24, 2007	BARCLAYS	EUR/USD	163,373.40
April 24, 2007	BARCLAYS	USD/JPY	161,031.99
May 3, 2007	BARCLAYS	EUR/USD	-788,080.80
May 3, 2007	BARCLAYS	USD/GBP	-794,774.40
May 7, 2007	BARCLAYS	AUD/USD	572,509.00
May 7, 2007	BARCLAYS	USD/AUD	573,930.00
May 8, 2007	BARCLAYS	EUR/USD	-381,978.80
May 8, 2007	BARCLAYS	USD/EUR	-380,856.00
May 10, 2007	BARCLAYS	JPY/USD	278,423.92
May 14, 2007	BARCLAYS	CHF/EUR	256,685.67
May 14, 2007	BARCLAYS	EUR/CHF	-254,861.56
May 14, 2007	BARCLAYS	USD/GBP	276,791.58
May 15, 2007	BARCLAYS	CAD/USD	-45,697.16
May 15, 2007	BARCLAYS	USD/CAD	45,578.85
May 16, 2007	BARCLAYS	EUR/USD	393,570.51

## HCA Inc. Master Retirement Trust

Date	BARCLAYS	Currency Pair	\$US Value
May 21, 2007	BARCLAYS	AUD/USD	138,721.62
May 23, 2007	BARCLAYS	USD/JPY	267,091.79
May 24, 2007	BARCLAYS	EUR/USD	-499,413.05
May 24, 2007	BARCLAYS	USD/EUR	-497,946.00
May 30, 2007	BARCLAYS	GBP/USD	256,782.50
May 30, 2007	BARCLAYS	JPY/USD	139,933.82
May 30, 2007	BARCLAYS	JPY/USD	172,761.30
May 30, 2007	BARCLAYS	JPY/USD	197,394.39
May 30, 2007	BARCLAYS	USD/GBP	-256,512.75
June 11, 2007	BARCLAYS	EUR/USD	-93,527.98
June 18, 2007	BARCLAYS	EUR/USD	67,203.57
June 21, 2007	BARCLAYS	EUR/USD	-416,712.14
July 2, 2007	BARCLAYS	GBP/USD	-140,565.93
July 9, 2007	BARCLAYS	USD/JPY	-605,429.89
July 24, 2007	BARCLAYS	USD/EUR	-483,808.50
July 24, 2007	BARCLAYS	USD/EUR	332,172.43
July 26, 2007	BARCLAYS	USD/EUR	109,972.98
July 26, 2007	BARCLAYS	USD/GBP	-122,540.49
July 30, 2007	BARCLAYS	AUD/USD	-254,560.98
July 30, 2007	BARCLAYS	USD/JPY	-126,029.24
July 30, 2007	BARCLAYS	USD/JPY	118,071.72
July 30, 2007	BARCLAYS	USD/JPY	126,667.79
July 31, 2007	BARCLAYS	SEK/EUR	237,118.13
August 6, 2007	BARCLAYS	GBP/USD	-387,866.00
August 6, 2007	BARCLAYS	USD/GBP	387,072.75
August 13, 2007	BARCLAYS	USD/JPY	-59,084.69
August 13, 2007	BARCLAYS	USD/JPY	-67,642.98
August 13, 2007	BARCLAYS	USD/JPY	59,084.69
August 13, 2007	BARCLAYS	USD/JPY	67,553.30
August 13, 2007	BARCLAYS	USD/JPY	67,586.40
August 15, 2007	BARCLAYS	CHF/EUR	-331,417.77
August 15, 2007	BARCLAYS	CHF/EUR	-323,132.32
August 15, 2007	BARCLAYS	CHF/EUR	-372,844.99
August 15, 2007	BARCLAYS	EUR/CHF	369,778.39
August 15, 2007	BARCLAYS	EUR/CHF	320,763.90
August 15, 2007	BARCLAYS	EUR/CHF	329,293.90
August 16, 2007	BARCLAYS	JPY/USD	-819,439.90
August 16, 2007	BARCLAYS	USD/JPY	-61,258.42
August 16, 2007	BARCLAYS	USD/JPY	-61,274.51
August 16, 2007	BARCLAYS	USD/JPY	810,344.83
August 20, 2007	BARCLAYS	AUD/USD	271,175.50
August 20, 2007	BARCLAYS	USD/AUD	272,204.00
August 20, 2007	BARCLAYS	USD/JPY	-24,795.94
August 20, 2007	BARCLAYS	USD/JPY	-69,674.27
August 20, 2007	BARCLAYS	USD/JPY	-34,882.71
August 27, 2007	BARCLAYS	JPY/USD	427,536.86
August 27, 2007	BARCLAYS	NZD/USD	79,783.00
August 27, 2007	BARCLAYS	USD/JPY	422,778.26

## HCA Inc. Master Retirement Trust

Date	BARCLAYS	Currency Pair	\$US Value
August 27, 2007	BARCLAYS	USD/NZD	-79,153.25
September 4, 2007	BARCLAYS	CHF/EUR	-274,410.34
September 4, 2007	BARCLAYS	EUR/CHF	-272,810.35
September 5, 2007	BARCLAYS	GBP/USD	180,901.26
September 5, 2007	BARCLAYS	GBP/USD	241,131.00
September 5, 2007	BARCLAYS	USD/GBP	-240,600.00
September 6, 2007	BARCLAYS	GBP/USD	-242,160.00
September 6, 2007	BARCLAYS	JPY/USD	405,482.83
September 6, 2007	BARCLAYS	USD/EUR	1,246,495.25
September 6, 2007	BARCLAYS	USD/GBP	-241,641.00
September 6, 2007	BARCLAYS	USD/JPY	-400,557.30
September 11, 2007	BARCLAYS	JPY/USD	-142,624.11
September 11, 2007	BARCLAYS	USD/EUR	138,365.00
September 11, 2007	BARCLAYS	USD/JPY	87,573.34
September 11, 2007	BARCLAYS	USD/JPY	75,178.23
September 11, 2007	BARCLAYS	USD/JPY	113,995.09
September 11, 2007	BARCLAYS	USD/JPY	87,688.53
September 11, 2007	BARCLAYS	USD/JPY	87,742.39
September 11, 2007	BARCLAYS	USD/JPY	96,516.63
September 11, 2007	BARCLAYS	USD/JPY	105,290.87
September 12, 2007	BARCLAYS	JPY/USD	-79,932.15
September 12, 2007	BARCLAYS	USD/EUR	-83,527.56
October 22, 2007	BARCLAYS	USD/JPY	-117,806.69
October 25, 2007	BARCLAYS	JPY/USD	2,436,272.93
November 5, 2007	BARCLAYS	JPY/USD	-584,650.27
November 5, 2007	BARCLAYS	USD/JPY	578,947.37
November 7, 2007	BARCLAYS	AUD/USD	-669,600.00
November 7, 2007	BARCLAYS	USD/AUD	-673,509.60
November 7, 2007	BARCLAYS	USD/AUD	673,509.60
November 23, 2007	BARCLAYS	USD/JPY	-148,161.87
November 28, 2007	BARCLAYS	EUR/SEK	236,818.09
November 29, 2007	BARCLAYS	GBP/USD	185,526.00
November 29, 2007	BARCLAYS	USD/GBP	184,945.50
December 6, 2007	BARCLAYS	EUR/SEK	-264,466.94
December 6, 2007	BARCLAYS	JPY/USD	364,783.77
December 6, 2007	BARCLAYS	SEK/EUR	264,622.11
December 6, 2007	BARCLAYS	USD/JPY	-361,141.21
December 7, 2007	BARCLAYS	EUR/CHF	-811,797.19
December 7, 2007	BARCLAYS	JPY/USD	107,421.00
December 7, 2007	BARCLAYS	JPY/USD	53,681.67
December 7, 2007	BARCLAYS	JPY/USD	57,958.67
December 7, 2007	BARCLAYS	JPY/USD	-98,592.81
December 7, 2007	BARCLAYS	JPY/USD	-80,652.39
December 7, 2007	BARCLAYS	JPY/USD	-71,691.01
December 12, 2007	BARCLAYS	USD/CAD	-871,160.34
December 20, 2007	BARCLAYS	USD/JPY	-165,733.09
December 20, 2007	BARCLAYS	USD/JPY	194,810.94
December 21, 2007	BARCLAYS	USD/AUD	-343,974.40

## HCA Inc. Master Retirement Trust

Date	BARCLAYS	Currency Pair	\$US Value
December 21, 2007	BARCLAYS	USD/AUD	343,974.40
December 31, 2007	BARCLAYS	USD/GBP	159,428.32
January 15, 2008	BARCLAYS	GBP/USD	157,656.00
January 18, 2008	BARCLAYS	NZD/USD	-546,719.04
January 19, 2008	BARCLAYS	USD/AUD	-549,801.00
January 21, 2008	BARCLAYS	USD/AUD	843,041.55
January 22, 2008	BARCLAYS	USD/EUR	29,082.00
January 22, 2008	BARCLAYS	USD/EUR	58,468.00
January 24, 2008	BARCLAYS	USD/EUR	-86,741.18
January 24, 2008	BARCLAYS	USD/EUR	-88,404.00
January 28, 2008	BARCLAYS	GBP/USD	869,279.40
January 28, 2008	BARCLAYS	JPY/USD	65,598.35
February 4, 2008	BARCLAYS	JPY/USD	-206,589.17
February 4, 2008	BARCLAYS	USD/EUR	-207,426.80
February 7, 2008	BARCLAYS	USD/JPY	-37,541.06
February 7, 2008	BARCLAYS	USD/JPY	28,203.44
February 11, 2008	BARCLAYS	JPY/USD	236,383.74
February 11, 2008	BARCLAYS	USD/EUR	230,904.00
February 13, 2008	BARCLAYS	USD/AUD	-222,540.50
February 14, 2008	BARCLAYS	JPY/USD	-1,060,366.48
February 14, 2008	BARCLAYS	USD/JPY	1,055,087.10
February 15, 2008	BARCLAYS	JPY/USD	62,563.15
February 15, 2008	BARCLAYS	JPY/USD	74,280.41
February 15, 2008	BARCLAYS	SGD/USD	-49,670.05
February 15, 2008	BARCLAYS	USD/SGD	49,487.45
February 19, 2008	BARCLAYS	AUD/USD	-458,500.00
February 19, 2008	BARCLAYS	USD/AUD	-452,915.00
February 27, 2008	BARCLAYS	GBP/USD	1,029,369.84
February 28, 2008	BARCLAYS	AUD/USD	148,984.00
February 28, 2008	BARCLAYS	AUD/USD	-146,984.00
February 28, 2008	BARCLAYS	USD/NZD	-151,913.55
February 29, 2008	BARCLAYS	GBP/USD	828,790.20
March 3, 2008	BARCLAYS	USD/EUR	847,537.60
March 3, 2008	BARCLAYS	USD/JPY	86,914.53
March 3, 2008	BARCLAYS	USD/JPY	67,652.46
March 3, 2008	BARCLAYS	USD/JPY	67,678.62
March 7, 2008	BARCLAYS	CAD/USD	-367,712.78
March 7, 2008	BARCLAYS	USD/CAD	-368,418.36
March 10, 2008	BARCLAYS	GBP/USD	580,420.21
March 10, 2008	BARCLAYS	SEK/EUR	-178,719.27
March 11, 2008	BARCLAYS	GBP/USD	-578,783.74
March 11, 2008	BARCLAYS	JPY/USD	989,168.60
March 11, 2008	BARCLAYS	USD/EUR	-76,636.55
March 11, 2008	BARCLAYS	USD/JPY	984,738.58
March 14, 2008	BARCLAYS	USD/JPY	-49,950.05
March 17, 2008	BARCLAYS	USD/EUR	345,500.98
March 18, 2008	BARCLAYS	USD/JPY	90,525.05
March 20, 2008	BARCLAYS	EUR/USD	-243,868.87
March 24, 2008	BARCLAYS	EUR/USD	-463,490.81

## HCA Inc. Master Retirement Trust

Date	BARCLAYS	Currency Pair	\$US Value
March 26, 2008	BARCLAYS	USD/GBP	59,874.00
March 26, 2008	BARCLAYS	USD/GBP	78,411.69
April 3, 2008	BARCLAYS	EUR/USD	-218,442.00
April 21, 2008	BARCLAYS	USD/GBP	4,831.97
April 21, 2008	BARCLAYS	USD/GBP	79,484.00
April 22, 2008	BARCLAYS	JPY/USD	-58,195.93
April 25, 2008	BARCLAYS	JPY/USD	57,614.75
April 25, 2008	BARCLAYS	JPY/USD	38,395.09
April 28, 2008	BARCLAYS	JPY/USD	-9,577.63
April 30, 2008	BARCLAYS	EUR/USD	870,383.36
May 2, 2008	BARCLAYS	USD/JPY	-331,533.58
May 5, 2008	BARCLAYS	AUD/USD	-750,654.40
May 8, 2008	BARCLAYS	JPY/USD	173,343.61
May 14, 2008	BARCLAYS	JPY/USD	-554,509.21
May 14, 2008	BARCLAYS	USD/JPY	-551,750.38
May 15, 2008	BARCLAYS	USD/GBP	55,367.95
May 15, 2008	BARCLAYS	USD/GBP	58,305.00
May 16, 2008	BARCLAYS	NOK/USD	-1,178,455.66
May 16, 2008	BARCLAYS	USD/NOK	-1,189,438.10
May 20, 2008	BARCLAYS	NZD/USD	162,015.00
May 20, 2008	BARCLAYS	USD/NZD	159,631.50
May 29, 2008	BARCLAYS	JPY/USD	-440,644.68
May 29, 2008	BARCLAYS	USD/JPY	438,429.28
May 30, 2008	BARCLAYS	JPY/USD	-179,822.07
June 2, 2008	BARCLAYS	JPY/USD	391,221.37
June 2, 2008	BARCLAYS	USD/JPY	389,323.05
June 3, 2008	BARCLAYS	AUD/USD	178,704.50
June 3, 2008	BARCLAYS	GBP/USD	-254,350.46
June 3, 2008	BARCLAYS	USD/CAD	-178,791.02
June 4, 2008	BARCLAYS	USD/JPY	85,624.58
June 5, 2008	BARCLAYS	JPY/USD	227,957.71
June 5, 2008	BARCLAYS	USD/EUR	230,451.00
June 6, 2008	BARCLAYS	AUD/USD	-478,000.00
June 6, 2008	BARCLAYS	USD/AUD	472,187.50
June 9, 2008	BARCLAYS	JPY/USD	-54,516.14
June 10, 2008	BARCLAYS	EUR/USD	449,935.00
June 10, 2008	BARCLAYS	JPY/USD	-18,847.48
June 10, 2008	BARCLAYS	USD/AUD	-40,583.97
June 10, 2008	BARCLAYS	USD/AUD	-56,638.00
June 10, 2008	BARCLAYS	USD/EUR	-447,855.70
June 10, 2008	BARCLAYS	USD/JPY	18,747.66
June 13, 2008	BARCLAYS	AUD/USD	166,752.00
June 13, 2008	BARCLAYS	USD/NZD	-169,683.88
June 17, 2008	BARCLAYS	AUD/USD	-436,923.28
July 3, 2008	BARCLAYS	USD/EUR	1,581,505.00
July 8, 2008	BARCLAYS	GBP/USD	-177,417.00
July 8, 2008	BARCLAYS	GBP/USD	-332,980.70
July 17, 2008	BARCLAYS	EUR/USD	537,856.20

## HCA Inc. Master Retirement Trust

Date	BARCLAYS	Currency Pair	\$US Value
July 17, 2008	BARCLAYS	USD/JPY	531,301.08
July 18, 2008	BARCLAYS	USD/JPY	-217,072.47
July 23, 2008	BARCLAYS	EUR/USD	-802,615.05
July 24, 2008	BARCLAYS	JPY/USD	2,317,197.33
July 25, 2008	BARCLAYS	EUR/USD	-627,500.00
July 25, 2008	BARCLAYS	USD/JPY	-628,024.92
July 28, 2008	BARCLAYS	EUR/USD	1,068,348.00
July 28, 2008	BARCLAYS	USD/JPY	1,061,113.81
August 7, 2008	BARCLAYS	USD/JPY	-9,159.01
August 11, 2008	BARCLAYS	JPY/USD	843,000.35
August 11, 2008	BARCLAYS	USD/JPY	-838,345.18
August 12, 2008	BARCLAYS	EUR/SEK	-395,927.97
August 12, 2008	BARCLAYS	GBP/USD	246,090.00
August 12, 2008	BARCLAYS	SEK/EUR	394,005.69
August 12, 2008	BARCLAYS	USD/GBP	-244,435.75
August 14, 2008	BARCLAYS	USD/EUR	325,490.66
August 19, 2008	BARCLAYS	NZD/USD	-155,650.00
August 19, 2008	BARCLAYS	USD/NZD	-153,653.50
August 20, 2008	BARCLAYS	EUR/USD	1,358,080.00
August 20, 2008	BARCLAYS	USD/EUR	-1,349,695.20
August 22, 2008	BARCLAYS	NOK/USD	1,167,230.61
August 22, 2008	BARCLAYS	USD/NOK	1,177,924.57
August 28, 2008	BARCLAYS	USD/AUD	-457,698.60
September 2, 2008	BARCLAYS	JPY/USD	55,218.11
September 2, 2008	BARCLAYS	JPY/USD	82,720.59
September 3, 2008	BARCLAYS	EUR/USD	273,953.97
September 3, 2008	BARCLAYS	EUR/USD	-273,953.97
September 3, 2008	BARCLAYS	USD/EUR	272,666.15
September 4, 2008	BARCLAYS	EUR/USD	1,653,769.00
September 8, 2008	BARCLAYS	EUR/USD	14,333.00
September 8, 2008	BARCLAYS	USD/EUR	142,260.00
September 8, 2008	BARCLAYS	USD/EUR	14,263.75
September 8, 2008	BARCLAYS	USD/JPY	-45,943.21
September 8, 2008	BARCLAYS	USD/JPY	-64,344.15
September 8, 2008	BARCLAYS	USD/JPY	-63,874.84
September 9, 2008	BARCLAYS	JPY/USD	65,342.46
September 11, 2008	BARCLAYS	AUD/USD	180,292.40
September 11, 2008	BARCLAYS	USD/CAD	-175,778.83
September 11, 2008	BARCLAYS	USD/GBP	700,560.00
September 12, 2008	BARCLAYS	EUR/CHF	-458,439.91
September 12, 2008	BARCLAYS	JPY/USD	-84,033.61
September 12, 2008	BARCLAYS	JPY/USD	-84,010.08
September 12, 2008	BARCLAYS	JPY/USD	-74,661.69
September 12, 2008	BARCLAYS	JPY/USD	-55,980.59
September 12, 2008	BARCLAYS	JPY/USD	-83,931.74
September 12, 2008	BARCLAYS	JPY/USD	-65,268.07
September 15, 2008	BARCLAYS	AUD/USD	167,527.50
September 15, 2008	BARCLAYS	USD/CAD	167,702.23

## HCA Inc. Master Retirement Trust

Date	BARCLAYS	Currency Pair	\$US Value
September 17, 2008	BARCLAYS	DKK/USD	1,540,460.23
September 17, 2008	BARCLAYS	USD/NZD	-84,461.00
September 18, 2008	BARCLAYS	JPY/USD	57,317.54
September 18, 2008	BARCLAYS	JPY/USD	38,193.45
September 18, 2008	BARCLAYS	JPY/USD	47,628.12
September 18, 2008	BARCLAYS	JPY/USD	47,510.45
September 18, 2008	BARCLAYS	JPY/USD	56,963.83
September 19, 2008	BARCLAYS	SGD/USD	-20,996.64
September 25, 2008	BARCLAYS	USD/EUR	264,834.00
September 30, 2008	BARCLAYS	USD/EUR	-118,414.02
September 30, 2008	BARCLAYS	USD/EUR	198,422.00
September 30, 2008	BARCLAYS	USD/EUR	213,030.00
October 1, 2008	BARCLAYS	AUD/USD	47,604.00
October 8, 2008	BARCLAYS	AUD/USD	-68,883.18
October 10, 2008	BARCLAYS	GBP/USD	580,973.30
October 14, 2008	BARCLAYS	EUR/USD	-341,975.00
October 14, 2008	BARCLAYS	USD/JPY	-98,926.84
October 15, 2008	BARCLAYS	USD/CAD	42,354.93
October 16, 2008	BARCLAYS	GBP/USD	-154,580.58
October 22, 2008	BARCLAYS	GBP/USD	425,993.62
October 30, 2008	BARCLAYS	GBP/USD	-713,670.14
November 4, 2008	BARCLAYS	CHF/EUR	-535,847.88
November 10, 2008	BARCLAYS	USD/GBP	755,562.72
November 11, 2008	BARCLAYS	CAD/USD	637,851.45
November 11, 2008	BARCLAYS	USD/CAD	-637,637.39
November 14, 2008	BARCLAYS	EUR/USD	165,230.00
November 14, 2008	BARCLAYS	USD/EUR	165,074.00
November 18, 2008	BARCLAYS	USD/EUR	-379,050.00
November 19, 2008	BARCLAYS	EUR/CHF	-471,543.16
November 21, 2008	BARCLAYS	EUR/SEK	72,821.74
November 21, 2008	BARCLAYS	SEK/EUR	71,199.00
November 24, 2008	BARCLAYS	NZD/USD	-716,445.00
November 24, 2008	BARCLAYS	SGD/USD	347,518.20
November 24, 2008	BARCLAYS	USD/NZD	-708,345.00
November 24, 2008	BARCLAYS	USD/SGD	346,518.47
November 25, 2008	BARCLAYS	USD/PLN	-309,795.99
December 2, 2008	BARCLAYS	USD/EUR	-88,013.44
December 2, 2008	BARCLAYS	USD/EUR	-215,951.00
December 3, 2008	BARCLAYS	AUD/USD	115,686.00
December 4, 2008	BARCLAYS	CAD/USD	158,764.81
December 4, 2008	BARCLAYS	USD/AUD	-161,980.00
December 5, 2008	BARCLAYS	EUR/USD	-392,801.00
December 5, 2008	BARCLAYS	USD/JPY	-392,307.89
December 9, 2008	BARCLAYS	EUR/USD	323,475.00
December 9, 2008	BARCLAYS	GBP/USD	-317,775.89
December 10, 2008	BARCLAYS	EUR/USD	221,017.00
December 10, 2008	BARCLAYS	EUR/USD	144,552.72
December 12, 2008	BARCLAYS	NZD/USD	411,494.40

## HCA Inc. Master Retirement Trust

Date	BARCLAYS	Currency Pair	\$US Value
December 12, 2008	BARCLAYS	NZD/USD	-411,494.40
December 12, 2008	BARCLAYS	USD/AUD	407,464.00
December 17, 2008	BARCLAYS	USD/GBP	-291,498.00
December 17, 2008	BARCLAYS	USD/GBP	-187,555.47
December 17, 2008	BARCLAYS	USD/GBP	261,647.00
February 9, 2009	BARCLAYS	USD/EUR	-156,606.12
February 12, 2009	BARCLAYS	USD/EUR	-190,920.00
February 19, 2009	BARCLAYS	USD/EUR	164,850.66
February 20, 2009	BARCLAYS	CAD/USD	71,451.25
February 20, 2009	BARCLAYS	JPY/USD	641,194.18
February 20, 2009	BARCLAYS	JPY/USD	-193,016.66
February 20, 2009	BARCLAYS	JPY/USD	-641,194.18
February 20, 2009	BARCLAYS	USD/CAD	-71,400.24
February 20, 2009	BARCLAYS	USD/EUR	630,000.00
February 20, 2009	BARCLAYS	USD/EUR	7,582,027.65
February 20, 2009	BARCLAYS	USD/JPY	-192,946.73
February 23, 2009	BARCLAYS	EUR/SEK	45,549.07
February 23, 2009	BARCLAYS	EUR/USD	-319,900.00
February 23, 2009	BARCLAYS	SEK/EUR	-45,584.18
February 23, 2009	BARCLAYS	USD/EUR	-230,777.28
February 23, 2009	BARCLAYS	USD/EUR	319,830.00
February 24, 2009	BARCLAYS	CAD/USD	88,415.55
February 24, 2009	BARCLAYS	CAD/USD	88,195.79
February 24, 2009	BARCLAYS	NZD/USD	-45,657.00
February 24, 2009	BARCLAYS	USD/CAD	-88,130.43
February 24, 2009	BARCLAYS	USD/CAD	-88,342.77
February 24, 2009	BARCLAYS	USD/EUR	611,354.40
February 24, 2009	BARCLAYS	USD/NZD	-45,400.50
February 25, 2009	BARCLAYS	CAD/USD	96,503.75
February 25, 2009	BARCLAYS	CAD/USD	95,775.12
February 25, 2009	BARCLAYS	EUR/USD	-332,722.00
February 25, 2009	BARCLAYS	USD/CAD	-96,424.27
February 25, 2009	BARCLAYS	USD/CAD	95,693.78
February 25, 2009	BARCLAYS	USD/EUR	-652,926.43
February 25, 2009	BARCLAYS	USD/EUR	-332,672.60
February 25, 2009	BARCLAYS	USD/EUR	51,350.20
February 26, 2009	BARCLAYS	EUR/SEK	-44,985.17
February 26, 2009	BARCLAYS	SEK/EUR	-44,798.33
February 27, 2009	BARCLAYS	EUR/USD	-97,573.79
February 27, 2009	BARCLAYS	GBP/USD	71,255.00
February 27, 2009	BARCLAYS	GBP/USD	70,840.00
February 27, 2009	BARCLAYS	GBP/USD	-71,255.00
February 27, 2009	BARCLAYS	GBP/USD	-56,976.00
February 27, 2009	BARCLAYS	GBP/USD	-77,870.84
February 27, 2009	BARCLAYS	JPY/USD	-360,785.23
February 27, 2009	BARCLAYS	USD/EUR	354,522.00
March 2, 2009	BARCLAYS	CAD/USD	249,827.66
March 2, 2009	BARCLAYS	EUR/USD	-314,675.00

## HCA Inc. Master Retirement Trust

Date	BARCLAYS	Currency Pair	\$US Value
March 2, 2009	BARCLAYS	EUR/USD	-314,375.00
March 2, 2009	BARCLAYS	USD/EUR	-314,368.75
March 2, 2009	BARCLAYS	USD/EUR	314,662.50
March 3, 2009	BARCLAYS	EUR/USD	315,625.00
March 3, 2009	BARCLAYS	USD/EUR	-62,730.00
March 3, 2009	BARCLAYS	USD/EUR	-315,632.50
March 3, 2009	BARCLAYS	USD/EUR	137,841.00
March 3, 2009	BARCLAYS	USD/EUR	125,900.00
March 4, 2009	BARCLAYS	CAD/USD	366,905.73
March 4, 2009	BARCLAYS	EUR/SEK	-43,565.67
March 4, 2009	BARCLAYS	SEK/EUR	43,789.03
March 5, 2009	BARCLAYS	EUR/SEK	43,919.07
March 5, 2009	BARCLAYS	SEK/EUR	-43,112.82
March 6, 2009	BARCLAYS	EUR/USD	318,225.00
March 6, 2009	BARCLAYS	USD/EUR	318,245.00
March 6, 2009	BARCLAYS	USD/GBP	-112,744.00
March 6, 2009	BARCLAYS	USD/GBP	-126,909.00
March 6, 2009	BARCLAYS	USD/GBP	126,900.00
March 6, 2009	BARCLAYS	USD/GBP	128,169.00
March 9, 2009	BARCLAYS	EUR/SEK	-43,798.82
March 9, 2009	BARCLAYS	SEK/EUR	43,957.05
March 9, 2009	BARCLAYS	USD/GBP	-41,280.00
March 10, 2009	BARCLAYS	EUR/USD	-25,580.00
March 10, 2009	BARCLAYS	USD/EUR	25,591.20
March 10, 2009	BARCLAYS	USD/GBP	-27,749.34
March 10, 2009	BARCLAYS	USD/JPY	435,388.37
March 12, 2009	BARCLAYS	EUR/USD	102,136.00
March 12, 2009	BARCLAYS	EUR/USD	114,741.00
March 12, 2009	BARCLAYS	EUR/USD	-55,510.53
March 12, 2009	BARCLAYS	EUR/USD	-166,062.00
March 17, 2009	BARCLAYS	USD/JPY	131,949.96
March 23, 2009	BARCLAYS	EUR/USD	-163,074.00
March 23, 2009	BARCLAYS	USD/JPY	155,147.81
March 25, 2009	BARCLAYS	GBP/USD	43,764.00
March 25, 2009	BARCLAYS	JPY/USD	-194,897.78
March 31, 2009	BARCLAYS	USD/EUR	106,504.00
April 3, 2009	BARCLAYS	EUR/SEK	570,386.57
April 3, 2009	BARCLAYS	EUR/USD	26,816.00
April 3, 2009	BARCLAYS	EUR/USD	26,774.00
April 3, 2009	BARCLAYS	EUR/USD	26,764.00
April 3, 2009	BARCLAYS	EUR/USD	-26,826.00
April 3, 2009	BARCLAYS	EUR/USD	-66,895.00
April 7, 2009	BARCLAYS	NZD/USD	150,888.14
April 24, 2009	BARCLAYS	USD/EUR	-464,072.00
April 27, 2009	BARCLAYS	USD/EUR	-131,299.10
April 30, 2009	BARCLAYS	USD/EUR	-398,121.30
May 8, 2009	BARCLAYS	GBP/USD	174,649.68
May 19, 2009	BARCLAYS	USD/EUR	150,002.60

## HCA Inc. Master Retirement Trust

Date	BARCLAYS	Currency Pair	\$US Value
May 22, 2009	BARCLAYS	EUR/SEK	-147,247.59
May 26, 2009	BARCLAYS	EUR/USD	153,186.00
May 26, 2009	BARCLAYS	EUR/USD	112,820.46
May 26, 2009	BARCLAYS	EUR/USD	-125,802.00
May 26, 2009	BARCLAYS	EUR/USD	-153,747.00
May 26, 2009	BARCLAYS	EUR/USD	-111,808.00
May 26, 2009	BARCLAYS	EUR/USD	-138,950.00
May 29, 2009	BARCLAYS	GBP/USD	295,165.39
May 29, 2009	BARCLAYS	GBP/USD	-210,093.00
June 1, 2009	BARCLAYS	EUR/USD	298,062.87
June 1, 2009	BARCLAYS	EUR/USD	-255,269.52
June 1, 2009	BARCLAYS	EUR/USD	-368,462.64
June 3, 2009	BARCLAYS	EUR/SEK	92,166.57
June 3, 2009	BARCLAYS	SEK/EUR	-91,283.81
June 3, 2009	BARCLAYS	SEK/USD	1,957,019.16
June 5, 2009	BARCLAYS	SGD/USD	221,775.59
June 5, 2009	BARCLAYS	USD/SGD	-221,806.34
June 8, 2009	BARCLAYS	EUR/USD	97,111.00
June 8, 2009	BARCLAYS	EUR/USD	90,441.84
June 8, 2009	BARCLAYS	EUR/USD	-97,146.00
June 8, 2009	BARCLAYS	GBP/USD	127,464.00
June 8, 2009	BARCLAYS	NZD/USD	31,025.00
June 8, 2009	BARCLAYS	NZD/USD	-266,600.00
June 8, 2009	BARCLAYS	USD/NZD	265,196.05
June 8, 2009	BARCLAYS	USD/NZD	30,859.50
June 9, 2009	BARCLAYS	PLN/USD	2,348,447.96
June 16, 2009	BARCLAYS	SEK/EUR	-255,223.37
June 16, 2009	BARCLAYS	USD/EUR	-205,113.92
June 16, 2009	BARCLAYS	USD/EUR	305,734.00
July 3, 2009	BARCLAYS	USD/EUR	-42,006.00
July 3, 2009	BARCLAYS	USD/EUR	56,020.00
July 8, 2009	BARCLAYS	EUR/CHF	128,402.03
July 8, 2009	BARCLAYS	EUR/SEK	-300,701.73
July 21, 2009	BARCLAYS	NZD/USD	130,678.60
July 31, 2009	BARCLAYS	CAD/USD	-249,307.94
July 31, 2009	BARCLAYS	EUR/CHF	3,805,988.27
August 3, 2009	BARCLAYS	USD/EUR	-71,615.00
August 3, 2009	BARCLAYS	USD/EUR	-71,625.00
August 3, 2009	BARCLAYS	USD/EUR	115,352.00
August 10, 2009	BARCLAYS	EUR/USD	85,044.00
August 10, 2009	BARCLAYS	EUR/USD	77,839.00
August 10, 2009	BARCLAYS	EUR/USD	-99,232.00
August 17, 2009	BARCLAYS	SGD/USD	55,091.87
August 17, 2009	BARCLAYS	USD/EUR	126,486.00
August 17, 2009	BARCLAYS	USD/SGD	-55,111.60
September 2, 2009	BARCLAYS	NOK/USD	875,223.31
September 2, 2009	BARCLAYS	USD/NOK	877,856.32
September 29, 2009	BARCLAYS	USD/EUR	-87,462.00

## HCA Inc. Master Retirement Trust

Date	BARCLAYS	Currency Pair	\$US Value
October 27, 2009	BARCLAYS	USD/EUR	-600,117.15
November 3, 2009	BARCLAYS	USD/EUR	14,705.00
November 18, 2009	BARCLAYS	SGD/USD	14,445.65
November 18, 2009	BARCLAYS	USD/SGD	14,454.00
November 25, 2009	BARCLAYS	SGD/USD	-14,481.63
November 25, 2009	BARCLAYS	USD/SGD	14,492.75
November 27, 2009	BARCLAYS	USD/EUR	-163,867.00
November 27, 2009	BARCLAYS	USD/EUR	-44,820.00
November 27, 2009	BARCLAYS	USD/EUR	163,867.00
November 27, 2009	BARCLAYS	USD/EUR	59,624.00
November 27, 2009	BARCLAYS	USD/EUR	44,733.00
November 27, 2009	BARCLAYS	USD/EUR	44,820.00
December 2, 2009	BARCLAYS	USD/JPY	-176,628.50
December 2, 2009	BARCLAYS	USD/JPY	-137,598.90
December 30, 2009	BARCLAYS	USD/EUR	1,150,671.86
December 30, 2009	BARCLAYS	USD/JPY	-1,110,959.64

## HCA Inc. Master Retirement Trust

Date	BNP PARIBAS	Currency Pair	\$US Value
February 27, 2009	BNP PARIBAS	AUD/USD	1,169,187.00
February 27, 2009	BNP PARIBAS	SEK/EUR	-44,508.25
March 5, 2009	BNP PARIBAS	CAD/USD	679,328.73
March 10, 2009	BNP PARIBAS	CHF/EUR	-34,662.44
April 3, 2009	BNP PARIBAS	USD/JPY	-1,443,431.04
June 1, 2009	BNP PARIBAS	EUR/USD	298,478.67
June 23, 2009	BNP PARIBAS	USD/GBP	-179,817.00
July 16, 2009	BNP PARIBAS	DKK/USD	1,985,357.16
November 30, 2009	BNP PARIBAS	SGD/USD	14,438.61
December 14, 2009	BNP PARIBAS	USD/PLN	-133,104.63

## HCA Inc. Master Retirement Trust

Date	CITIBANK	Currency Pair	\$US Value
January 5, 2007	CITIBANK	EUR/SEK	115,038.67
January 5, 2007	CITIBANK	NZD/USD	117,008.45
March 5, 2007	CITIBANK	EUR/CHF	641,126.44
March 8, 2007	CITIBANK	SEK/EUR	198,634.03
May 1, 2007	CITIBANK	USD/JPY	-1,186,163.01
May 7, 2007	CITIBANK	CHF/EUR	183,870.43
May 31, 2007	CITIBANK	GBP/USD	-138,356.89
June 7, 2007	CITIBANK	USD/AUD	-143,497.00
November 1, 2007	CITIBANK	EUR/SEK	361,109.37
December 10, 2007	CITIBANK	EUR/USD	191,165.00
January 2, 2008	CITIBANK	USD/AUD	-1,314,526.50
May 8, 2008	CITIBANK	EUR/CHF	228,271.19
June 2, 2008	CITIBANK	USD/CAD	-130,086.25
June 2, 2008	CITIBANK	USD/JPY	-389,141.99
June 9, 2008	CITIBANK	SGD/USD	29,489.39
July 1, 2008	CITIBANK	USD/NZD	-285,307.04
August 5, 2008	CITIBANK	EUR/SEK	-277,684.15
August 29, 2008	CITIBANK	GBP/USD	109,744.50
November 24, 2008	CITIBANK	SEK/EUR	-47,508.48
December 2, 2008	CITIBANK	USD/EUR	-88,013.44

## HCA Inc. Master Retirement Trust

Date	CREDIT SUISSE	Currency Pair	\$US Value
March 2, 2007	CSFB GLOBAL	USD/EUR	-2,089,581.60
July 2, 2007	CSFB GLOBAL	GBP/USD	1,246,471.56
August 16, 2007	CSFB GLOBAL	USD/CAD	-2,735,625.76
September 25, 2007	CSFB GLOBAL	INR/USD	-1,478,803.71
September 26, 2007	CSFB GLOBAL	USD/INR	-1,039,559.96
October 1, 2007	CSFB GLOBAL	USD/CAD	-452,370.88
October 24, 2007	CSFB GLOBAL	USD/CAD	1,527,673.38
November 5, 2007	CSFB GLOBAL	AUD/USD	510,423.20
December 6, 2007	CSFB GLOBAL	USD/JPY	-1,373,919.36
December 10, 2007	CSFB GLOBAL	USD/AUD	-1,591,755.28
March 10, 2008	CSFB GLOBAL	AUD/USD	-1,665,799.63
June 18, 2008	CSFB GLOBAL	USD/EUR	5,703,143.17
July 3, 2008	CSFB GLOBAL	EUR/USD	-5,816,966.01
August 12, 2008	CSFB GLOBAL	USD/AUD	314,311.86
September 30, 2008	CSFB GLOBAL	CAD/USD	682,790.68
November 5, 2008	CSFB GLOBAL	USD/AUD	-2,754,452.00
November 6, 2008	CSFB GLOBAL	USD/PLN	-641,713.59
November 13, 2008	CSFB GLOBAL	USD/JPY	-881,058.44
December 16, 2008	CSFB GLOBAL	JPY/USD	-707,357.13
December 18, 2008	CSFB GLOBAL	USD/GBP	-2,163,621.10
January 14, 2009	CSFB GLOBAL	USD/JPY	2,781,675.23
January 21, 2009	CSFB GLOBAL	PLN/USD	537,008.00
January 30, 2009	CSFB GLOBAL	USD/EUR	-1,299,453.79
June 4, 2009	CSFB GLOBAL	JPY/USD	2,856,658.96
June 12, 2009	CSFB GLOBAL	GBP/USD	-1,523,393.50
August 6, 2009	CSFB GLOBAL	JPY/USD	2,888,210.64
September 10, 2009	CSFB GLOBAL	EUR/USD	-1,613,369.72
September 11, 2009	CSFB GLOBAL	USD/GBP	3,846,883.25
November 20, 2009	CSFB GLOBAL	CHF/USD	35,718.13
December 10, 2009	CSFB GLOBAL	GBP/USD	3,343,467.11
January 29, 2010	CSFB GLOBAL	USD/EUR	-1,475,123.76
February 5, 2010	CSFB GLOBAL	USD/GBP	-3,226,146.70
April 1, 2010	CSFB GLOBAL	USD/JPY	-1,885,876.22
May 4, 2010	CSFB GLOBAL	CAD/USD	87,089.96
May 4, 2010	CSFB GLOBAL	USD/HUF	-222,408.93
May 4, 2010	CSFB GLOBAL	USD/PLN	-483,119.34
June 1, 2010	CSFB GLOBAL	CZK/USD	245,190.27
June 8, 2010	CSFB GLOBAL	USD/EUR	-1,474,189.77
July 27, 2010	CSFB GLOBAL	CZK/USD	534,372.70
October 28, 2010	CSFB GLOBAL	HKD/USD	11,275.31

## HCA Inc. Master Retirement Trust

Date	DEUTSCHE BANK	Currency Pair	\$US Value
February 27, 2003	DEUTSCHE BANK LONDON	EUR/SEK	401,181.91
February 27, 2003	DEUTSCHE BANK LONDON	EUR/USD	-3,526,984.00
March 3, 2003	DEUTSCHE BANK LONDON	USD/AUD	-818,505.00
April 2, 2003	DEUTSCHE BANK LONDON	USD/EUR	831,988.85
June 5, 2003	DEUTSCHE BANK LONDON	USD/JPY	-681,628.84
August 28, 2003	DEUTSCHE BANK LONDON	AUD/USD	-390,637.20
November 21, 2003	DEUTSCHE BANK LONDON	AUD/USD	-320,265.00
November 26, 2003	DEUTSCHE BANK LONDON	CHF/EUR	455,564.02
December 4, 2003	DEUTSCHE BANK LONDON	USD/CAD	-2,832,689.54
December 4, 2003	DEUTSCHE BANK LONDON	CAD/USD	-2,844,106.46
February 23, 2004	DEUTSCHE BANK LONDON	USD/JPY	415,476.02
February 24, 2004	DEUTSCHE BANK LONDON	EUR/SEK	-247,273.88
April 5, 2004	DEUTSCHE BANK LONDON	NZD/USD	103,316.80
May 18, 2004	DEUTSCHE BANK LONDON	GBP/USD	353,073.00
August 5, 2004	DEUTSCHE BANK LONDON	USD/CAD	-159,240.26
August 25, 2004	DEUTSCHE BANK LONDON	USD/JPY	-645,983.08
September 28, 2004	DEUTSCHE BANK LONDON	NZD/USD	297,531.00
October 6, 2004	DEUTSCHE BANK LONDON	CHF/EUR	134,883.71
October 29, 2004	DEUTSCHE BANK LONDON	AUD/USD	698,469.82
November 11, 2004	DEUTSCHE BANK LONDON	EUR/USD	245,188.92
November 22, 2004	DEUTSCHE BANK LONDON	JPY/USD	410,108.19

## HCA Inc. Master Retirement Trust

Date	GOLDMAN SACHS	Currency Pair	\$US Value
February 2, 2007	GOLDMAN SACHS	USD/AUD	-162,335.25
February 6, 2007	GOLDMAN SACHS	CAD/USD	347,653.55
February 6, 2007	GOLDMAN SACHS	EUR/SEK	128,466.18
April 10, 2007	GOLDMAN SACHS	EUR/USD	780,417.84
May 9, 2007	GOLDMAN SACHS	CHF/EUR	-556,743.37
June 4, 2007	GOLDMAN SACHS	EUR/CHF	359,966.97
August 2, 2007	GOLDMAN SACHS	AUD/USD	274,201.60
August 8, 2007	GOLDMAN SACHS	EUR/CHF	1,077,248.98
December 5, 2007	GOLDMAN SACHS	GBP/USD	488,880.00
December 12, 2007	GOLDMAN SACHS	EUR/CHF	896,424.56
May 1, 2008	GOLDMAN SACHS	AUD/USD	786,718.80
September 2, 2008	GOLDMAN SACHS	USD/AUD	-8,184.20
June 3, 2008	GOLDMAN SACHS	GBP/USD	19,613.00
June 6, 2008	GOLDMAN SACHS	USD/CAD	-137,254.50
August 29, 2008	GOLDMAN SACHS	DKK/USD	143,084.23
September 19, 2008	GOLDMAN SACHS	USD/DKK	-138,591.46
February 1, 2008	GOLDMAN SACHS	USD/EUR	-326,216.00
June 4, 2008	GOLDMAN SACHS	CHF/EUR	-298,059.10
February 7, 2008	GOLDMAN SACHS	USD/EUR	-477,681.60
September 8, 2008	GOLDMAN SACHS	USD/EUR	-127,980.00

## HCA Inc. Master Retirement Trust

Date	HSBC	Currency Pair	\$US Value
April 5, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	AUD/USD	45,677.12
April 8, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	USD/NZD	-21,194.47
April 8, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	NOK/USD	381,975.46
April 13, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	USD/CAD	-221,534.22
April 13, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	CHF/USD	21,836.68
April 16, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	AUD/USD	16,255.44
April 19, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	CHF/USD	52,030.49
May 4, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	DKK/USD	620,768.42
June 2, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	USD/GBP	-1,604,886.65
July 15, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	JPY/USD	129,256.79
July 16, 2004	HSBC BANK USA NEW YORK	USD/EUR	-416,217.36
July 16, 2004	HSBC BANK USA NEW YORK	EUR/USD	-416,376.36
February 5, 2007	HSBC BANK USA	EUR/CHF	234,459.69
March 7, 2007	HSBC BANK USA	SEK/EUR	-271,030.49
April 3, 2007	HSBC BANK USA	EUR/SEK	243,488.85
May 2, 2007	HSBC BANK USA	USD/CAD	-316,293.26
May 2, 2007	HSBC BANK USA	EUR/USD	1,007,934.76
May 8, 2007	HSBC BANK USA	EUR/USD	136,336.20
June 7, 2007	HSBC BANK USA	CAD/USD	37,913.76
June 28, 2007	HSBC BANK USA	GBP/USD	59,947.41
July 3, 2007	HSBC BANK USA	GBP/USD	383,147.35
August 6, 2007	HSBC BANK USA	AUD/USD	391,368.00
January 4, 2008	HSBC BANK USA	CHF/EUR	-580,348.58
January 31, 2008	HSBC BANK USA	CAD/USD	139,064.51
April 2, 2008	HSBC BANK USA	JPY/USD	68,119.89
May 30, 2008	HSBC BANK USA	USD/EUR	-308,602.60
July 1, 2008	HSBC BANK USA	GBP/USD	376,961.52
August 1, 2008	HSBC BANK USA	EUR/SEK	328,726.40
September 3, 2008	HSBC BANK USA	EUR/USD	14,452.00
October 1, 2008	HSBC BANK USA	AUD/USD	63,416.00
December 2, 2008	HSBC BANK USA	USD/EUR	-228,474.00
December 4, 2008	HSBC BANK USA	USD/EUR	-199,534.13

## HCA Inc. Master Retirement Trust

Date	JPMORGAN CHASE	Currency Pair	\$US Value
January 15, 2003	CHASE MANHATTAN BANK NEW YORK	EUR/USD	1,220,801.43
February 25, 2003	CHASE MANHATTAN BANK NEW YORK	GBP/USD	-15,865.70
March 4, 2003	CHASE MANHATTAN BANK NEW YORK	GBP/USD	35,998.20
July 31, 2003	CHASE MANHATTAN BANK NEW YORK	USD/CAD	-347,015.82
August 4, 2003	CHASE MANHATTAN BANK NEW YORK	USD/JPY	-438,064.09
September 24, 2003	CHASE MANHATTAN BANK NEW YORK	USD/NZD	-12,212.51
September 24, 2003	CHASE MANHATTAN BANK NEW YORK	USD/SGD	-14,496.97
September 24, 2003	CHASE MANHATTAN BANK NEW YORK	USD/CHF	-30,575.30
November 4, 2003	CHASE MANHATTAN BANK NEW YORK	USD/AUD	5,338.00
December 29, 2003	CHASE MANHATTAN BANK NEW YORK	EUR/USD	-6,030.53
February 27, 2007	CHASE MANHATTEN	AUD/USD	300,616.10
March 6, 2007	CHASE MANHATTEN	SEK/EUR	-241,610.83
May 4, 2007	CHASE MANHATTEN	USD/EUR	-428,305.50
June 4, 2007	CHASE MANHATTEN	CAD/USD	37,930.87
June 11, 2007	CHASE MANHATTEN	EUR/USD	640,479.87
September 28, 2007	CHASE MANHATTEN	EUR/CHF	680,606.89
October 3, 2007	CHASE MANHATTEN	GBP/USD	407,188.20
October 5, 2007	CHASE MANHATTEN	EUR/CHF	393,266.56
October 10, 2007	CHASE MANHATTEN	EUR/CHF	264,049.31
December 4, 2007	CHASE MANHATTEN	USD/AUD	-165,200.25
February 19, 2008	CHASE MANHATTEN	GBP/USD	734,719.70
June 10, 2008	CHASE MANHATTEN	AUD/USD	62,560.65
August 5, 2008	CHASE MANHATTEN	USD/SEK	-22,899.65
October 9, 2008	CHASE MANHATTEN	USD/SGD	-552,882.51
October 9, 2008	CHASE MANHATTEN	USD/AUD	225,225.32
November 6, 2008	CHASE MANHATTEN	USD/PLN	-641,713.59
November 7, 2008	CHASE MANHATTEN	USD/HUF	-1,133,975.55
December 1, 2008	CHASE	JPY/USD	1,551,340.73
December 1, 2008	CHASE MANHATTEN	USD/JPY	1,551,178.37
December 4, 2008	CHASE MANHATTEN	EUR/USD	1,822,143.18
January 14, 2009	CHASE MANHATTEN	USD/JPY	-1,657,108.44
January 21, 2009	CHASE MANHATTEN	PLN/USD	120,097.56
February 12, 2009	CHASE MANHATTEN	USD/JPY	-1,642,327.09
February 12, 2009	CHASE	JPY/USD	1,643,182.85
March 4, 2009	CHASE MANHATTEN	PLN/USD	-504,787.06
March 5, 2009	CHASE MANHATTEN	USD/JPY	1,513,735.01
April 1, 2009	CHASE MANHATTEN	PLN/USD	414,827.28
May 8, 2009	CHASE MANHATTEN	USD/HUF	-921,219.88
June 4, 2009	CHASE MANHATTEN	USD/HUF	-1,169,761.35
August 3, 2009	CHASE	HUF/USD	-114,474.27
March 3, 2010	CHASE MANHATTEN	USD/EUR	-8,919,639.91
April 28, 2010	CHASE MANHATTEN	USD/EUR	3,309,783.83
June 2, 2010	CHASE MANHATTEN	EUR/USD	-3,172,717.77
June 4, 2010	CHASE MANHATTEN	USD/EUR	-3,168,330.75
June 9, 2010	CHASE MANHATTEN	GBP/USD	2,391,092.56
June 9, 2010	CHASE MANHATTEN	SEK/USD	583,280.14
July 2, 2010	CHASE MANHATTEN	EUR/USD	-2,244,368.61
July 27, 2010	CHASE MANHATTEN	SEK/USD	-896,060.93

## HCA Inc. Master Retirement Trust

Date	JPMORGAN CHASE	Currency Pair	\$US Value
October 19, 2010	CHASE MANHATTEN	USD/JPY	-1,900,767.74
December 13, 2010	CHASE MANHATTEN	USD/JPY	-1,832,879.97

## HCA Inc. Master Retirement Trust

Date	MORGAN STANLEY	Currency Pair	\$US Value
March 8, 2007	MORGAN STANLEY	CAD/USD	493,785.12
July 10, 2007	MORGAN STANLEY	USD/JPY	-49,269.50
August 2, 2007	MORGAN STANLEY	USD/GBP	-996,365.02
August 6, 2007	MORGAN STANLEY	EUR/SEK	389,492.37
August 22, 2007	MORGAN STANLEY	GBP/USD	356,940.00
October 1, 2007	MORGAN STANLEY	USD/AUD	-452,824.92
October 3, 2007	MORGAN STANLEY	EUR/CHF	537,567.71
October 5, 2007	MORGAN STANLEY	USD/AUD	-286,279.36
November 1, 2007	MORGAN STANLEY	EUR/USD	839,076.14
November 19, 2007	MORGAN STANLEY	CAD/USD	696,792.70
February 1, 2008	MORGAN STANLEY	USD/EUR	-179,645.33
February 11, 2008	MORGAN STANLEY	USD/AUD	-373,135.14
May 13, 2008	MORGAN STANLEY	SEK/EUR	-827,314.20
June 2, 2008	MORGAN STANLEY	AUD/USD	131,993.96
June 4, 2008	MORGAN STANLEY	CHF/EUR	-990,325.39
July 2, 2008	MORGAN STANLEY	GBP/USD	375,371.41
August 4, 2008	MORGAN STANLEY	USD/GBP	-410,411.40
August 13, 2008	MORGAN STANLEY	CAD/USD	486,850.36
September 17, 2008	MORGAN STANLEY	AUD/USD	62,577.39
September 17, 2008	MORGAN STANLEY	USD/DKK	-1,402,433.18

## HCA Inc. Master Retirement Trust

Date	RBS	Currency Pair	\$US Value
February 2, 2007	RBS FINANCIAL	EUR/USD	116,997.48
February 8, 2007	RBS FINANCIAL	EUR/SEK	273,593.17
February 9, 2007	RBS FINANCIAL	USD/CAD	-170,604.79
March 2, 2007	RBS FINANCIAL	AUD/USD	179,719.70
May 30, 2007	RBS FINANCIAL	CAD/USD	158,375.26
June 1, 2007	RBS FINANCIAL	CHF/EUR	-253,934.26
August 6, 2007	RBS FINANCIAL	SEK/EUR	-330,148.66
November 5, 2007	RBS FINANCIAL	AUD/USD	703,133.20
November 14, 2007	RBS FINANCIAL	CHF/EUR	-296,615.59
December 4, 2007	RBS FINANCIAL	GBP/USD	618,750.00
February 4, 2008	RBS FINANCIAL	CHF/EUR	-220,354.43
February 8, 2008	RBS FINANCIAL	USD/EUR	-432,253.20
March 5, 2008	RBS FINANCIAL	GBP/USD	850,540.00
March 6, 2008	RBS FINANCIAL	USD/AUD	-101,600.84
May 7, 2008	RBS FINANCIAL	USD/CAD	-139,562.75
June 5, 2008	RBS FINANCIAL	EUR/CHF	154,183.87
November 25, 2008	RBS FINANCIAL	USD/DKK	-307,673.59
December 1, 2008	RBS FINANCIAL	USD/GBP	-269,370.00
December 1, 2008	RBS FINANCIAL	EUR/CHF	529,653.31
December 3, 2008	RBS FINANCIAL	AUD/USD	162,071.97
February 10, 2009	RBS FINANCIAL	AUD/USD	73,070.25
February 27, 2009	RBS FINANCIAL	NZD/USD	45,045.00
March 9, 2009	RBS FINANCIAL	PLN/USD	2,298,953.82
April 2, 2009	RBS FINANCIAL	USD/GBP	-413,754.77
May 21, 2009	RBS FINANCIAL	USD/CAD	-157,301.68
June 1, 2009	RBS FINANCIAL	EUR/USD	312,453.02
June 4, 2009	RBS FINANCIAL	DKK/USD	2,571,509.46
July 27, 2009	RBS FINANCIAL	EUR/SEK	229,712.02
December 1, 2009	RBS FINANCIAL	SGD/USD	7,229.95
December 2, 2009	RBS FINANCIAL	USD/JPY	-183,486.24

## HCA Inc. Master Retirement Trust

Date	UBS	Currency Pair	\$US Value
January 9, 2003	UNION BANK OF SWIT NEW YK DTC 642	USD/EUR	-418,019.15
March 7, 2003	UNION BANK OF SWIT NEW YK DTC 642	GBP/USD	29,718.23
April 24, 2003	UNION BANK OF SWIT NEW YK DTC 642	USD/SEK	-68,993.72
June 8, 2003	UNION BANK OF SWIT NEW YK DTC 642	JPY/USD	495,714.11
June 19, 2003	UNION BANK OF SWIT NEW YK DTC 642	USD/CHF	-249,943.89
July 14, 2003	UNION BANK OF SWIT NEW YK DTC 642	SGD/USD	2,757,939.63
December 12, 2003	UNION BANK OF SWIT NEW YK DTC 642	EUR/USD	-47,792.94
December 17, 2003	UNION BANK OF SWIT NEW YK DTC 642	USD/AUD	-23,399.32
December 17, 2003	UNION BANK OF SWIT NEW YK DTC 642	USD/NZD	-13,305.37
December 17, 2003	UNION BANK OF SWIT NEW YK DTC 642	USD/JPY	58,005.38
February 27, 2004	UNION BANK OF SWIT NEW YK DTC 642	GBP/USD	-33,566.61
March 26, 2004	UNION BANK OF SWIT NEW YK DTC 642	AUD/USD	10,652.13
March 30, 2004	UNION BANK OF SWIT NEW YK DTC 642	CAD/USD	1,012,011.88
April 14, 2004	UNION BANK OF SWIT NEW YK DTC 642	AUD/USD	14,921.86
April 20, 2004	UNION BANK OF SWIT NEW YK DTC 642	CHF/USD	5,735.57
April 22, 2004	UNION BANK OF SWIT NEW YK DTC 642	USD/NZD	-25,282.24
April 29, 2004	UNION BANK OF SWIT NEW YK DTC 642	USD/GBP	-35,125.70
July 15, 2004	UNION BANK OF SWIT NEW YK DTC 642	USD/AUD	13,469.66
August 9, 2004	UNION BANK OF SWIT NEW YK DTC 642	JPY/USD	42,501.18
September 28, 2004	UNION BANK OF SWIT NEW YK DTC 642	USD/CHF	-24,805.19
November 24, 2004	UNION BANK OF SWIT NEW YK DTC 642	JPY/USD	-24,374.09

# Appendix 5

Date	CITIBANK	Currency Pair	\$US Value
April 29, 2005	CITIBANK N A LONDON (CREST 195)	EUR/USD	2,206,801.57
May 26, 2005	CITIBANK N A LONDON (CREST 195)	CAD/USD	349,822.89
July 7, 2005	CITIBANK N A LONDON (CREST 195)	EUR/USD	1,062,587.28
July 26, 2005	CITIBANK N A LONDON (CREST 195)	CAD/USD	364,481.38
July 26, 2005	CITIBANK N A LONDON (CREST 195)	USD/EUR	-982,475.80
July 27, 2005	CITIBANK N A LONDON (CREST 195)	USD/EUR	-104,149.94
October 25, 2005	CITIBANK N A LONDON (CREST 195)	CAD/USD	374,328.23
October 25, 2005	CITIBANK N A LONDON (CREST 195)	USD/CAD	-373,359.33
October 25, 2005	CITIBANK N A LONDON (CREST 195)	USD/EUR	-977,560.38
December 8, 2005	CITIBANK N A LONDON (CREST 195)	EUR/USD	3,073,769.53
January 11, 2006	CITIBANK N A LONDON (CREST 195)	USD/EUR	-1,697,908.81
January 23, 2006	CITIBANK N A LONDON (CREST 195)	CAD/USD	385,639.90
April 25, 2006	CITIBANK N A LONDON (CREST 195)	CAD/USD	390,716.53
June 21, 2006	CITIBANK N A LONDON (CREST 195)	USD/AUD	-41,085.54
July 24, 2006	CITIBANK N A LONDON (CREST 195)	EUR/USD	827,831.05
July 25, 2006	CITIBANK N A LONDON (CREST 195)	USD/CAD	-388,175.23
October 24, 2006	CITIBANK N A LONDON (CREST 195)	CAD/USD	393,012.09
October 24, 2006	CITIBANK N A LONDON (CREST 195)	EUR/USD	822,782.10
October 24, 2006	CITIBANK N A LONDON (CREST 195)	USD/EUR	-826,506.52
November 29, 2006	CITIBANK N A LONDON (CREST 195)	USD/CAD	-189,513.76
January 5, 2007	CITIBANK N.A.	USD/EUR	-31,919.06
January 23, 2007	CITIBANK N.A.	CAD/USD	375,614.15
January 24, 2007	CITIBANK N.A.	EUR/USD	849,141.55
April 24, 2007	CITIBANK N.A.	CAD/USD	395,737.53
July 24, 2007	CITIBANK N.A.	CAD/USD	424,634.70
September 21, 2007	CITIBANK N.A.	USD/EUR	-2,438,452.30
October 23, 2007	CITIBANK N.A.	CAD/USD	459,677.48
October 23, 2007	CITIBANK N.A.	USD/CAD	-459,605.92
October 23, 2007	CITIBANK N.A.	EUR/USD	3,398,202.13
October 23, 2007	CITIBANK N.A.	USD/EUR	-3,401,804.55
January 8, 2008	CITIBANK N.A.	USD/EUR	-35,670.25
January 29, 2008	CITIBANK N.A.	EUR/USD	3,522,533.29
April 22, 2008	CITIBANK N.A.	CAD/USD	438,949.98
April 22, 2008	CITIBANK N.A.	USD/CAD	-439,315.77
July 23, 2008	CITIBANK N.A.	USD/CAD	-438,228.90
October 15, 2008	CITIBANK N.A.	EUR/USD	2,243,637.00
October 21, 2008	CITIBANK N.A.	CAD/USD	371,595.45
October 21, 2008	CITIBANK N.A.	USD/CAD	-370,569.29
October 21, 2008	CITIBANK N.A.	EUR/USD	978,491.32
December 23, 2008	CITIBANK N.A.	GBP/USD	1,103,550.00
January 20, 2009	CITIBANK N.A.	GBP/USD	1,052,692.50
January 20, 2009	CITIBANK N.A.	CAD/USD	352,726.35
January 20, 2009	CITIBANK N.A.	USD/EUR	-951,086.21
April 24, 2009	CITIBANK N.A.	USD/GBP	-147,116.35
April 28, 2009	CITIBANK N.A.	EUR/USD	957,965.07
August 5, 2009	CITIBANK N.A.	GBP/USD	1,274,055.00
August 5, 2009	CITIBANK N.A.	USD/CAD	-411,437.61
August 5, 2009	CITIBANK N.A.	EUR/USD	1,059,419.17
September 11, 2009	CITIBANK N.A.	USD/CAD	-411,916.00
September 11, 2009	CITIBANK N.A.	EUR/USD	49,059.78

Date	CREDIT SUISSE	Currency Pair	\$US Value
August 27, 2003	CSFB GLOBAL FOREIGN EXCHANGE LONDON	EUR/USD	880,006.04
August 27, 2003	CSFB GLOBAL FOREIGN EXCHANGE LONDON	USD/EUR	-882,032.48
November 3, 2003	CSFB GLOBAL FOREIGN EXCHANGE LONDON	EUR/USD	832,903.28
November 3, 2003	CSFB GLOBAL FOREIGN EXCHANGE LONDON	USD/EUR	-935,309.17
January 28, 2004	CSFB GLOBAL FOREIGN EXCHANGE LONDON	EUR/USD	1,018,062.03
January 28, 2004	CSFB GLOBAL FOREIGN EXCHANGE LONDON	USD/EUR	-1,020,669.76
March 12, 2004	CSFB GLOBAL FOREIGN EXCHANGE LONDON	EUR/USD	2,261,899.22
March 12, 2004	CSFB GLOBAL FOREIGN EXCHANGE LONDON	USD/EUR	-2,258,387.82
April 22, 2004	CSFB GLOBAL FOREIGN EXCHANGE LONDON	EUR/USD	1,230,806.18
April 22, 2004	CSFB GLOBAL FOREIGN EXCHANGE LONDON	USD/EUR	-1,227,892.05
July 27, 2004	CSFB GLOBAL FOREIGN EXCHANGE LONDON	EUR/USD	1,266,920.65
July 27, 2004	CSFB GLOBAL FOREIGN EXCHANGE LONDON	USD/EUR	-1,265,411.55
October 22, 2004	CSFB GLOBAL FOREIGN EXCHANGE LONDON	EUR/USD	1,314,483.52
October 22, 2004	CSFB GLOBAL FOREIGN EXCHANGE LONDON	USD/EUR	-1,314,275.36
January 25, 2005	CSFB GLOBAL FOREIGN EXCHANGE LONDON	EUR/USD	1,360,797.47
January 25, 2005	CSFB GLOBAL FOREIGN EXCHANGE LONDON	USD/EUR	-1,362,826.95
April 26, 2005	CSFB GLOBAL FOREIGN EXCHANGE LONDON	EUR/USD	1,352,991.74
April 26, 2005	CSFB GLOBAL FOREIGN EXCHANGE LONDON	USD/EUR	-1,356,613.60
July 26, 2005	CSFB GLOBAL FOREIGN EXCHANGE LONDON	EUR/USD	1,255,160.03
July 26, 2005	CSFB GLOBAL FOREIGN EXCHANGE LONDON	USD/EUR	-1,260,082.84
October 25, 2005	CSFB GLOBAL FOREIGN EXCHANGE LONDON	EUR/USD	1,250,996.98
October 25, 2005	CSFB GLOBAL FOREIGN EXCHANGE LONDON	USD/EUR	-1,257,397.67
October 25, 2005	CSFB GLOBAL FOREIGN EXCHANGE LONDON	USD/EUR	-1,257,439.30
January 11, 2006	CSFB GLOBAL FOREIGN EXCHANGE LONDON	EUR/USD	1,261,009.12
September 19, 2006	CSFB GLOBAL FOREIGN EXCHANGE LONDON	JPY/CAD	-1,943,689.75
September 19, 2006	CSFB GLOBAL FOREIGN EXCHANGE LONDON	JPY/CAD	1,943,697.42
September 21, 2006	CSFB GLOBAL FOREIGN EXCHANGE LONDON	CAD/JPY	1,944,085.25
September 22, 2006	CSFB GLOBAL FOREIGN EXCHANGE LONDON	CAD/USD	1,960,493.36
October 24, 2006	CSFB GLOBAL FOREIGN EXCHANGE LONDON	JPY/USD	1,918,913.19
October 24, 2006	CSFB GLOBAL FOREIGN EXCHANGE LONDON	USD/JPY	-1,895,175.88
November 16, 2006	CSFB GLOBAL FOREIGN EXCHANGE LONDON	EUR/USD	1,942,192.20
January 23, 2007	CSFB GLOBAL	EUR/USD	1,969,372.20
January 23, 2007	CSFB GLOBAL	USD/EUR	-1,961,761.80
January 23, 2007	CSFB GLOBAL	JPY/USD	1,887,430.14
April 17, 2007	CSFB GLOBAL	USD/EUR	-2,021,061.12
April 24, 2007	CSFB GLOBAL	USD/EUR	-29,810.00
July 24, 2007	CSFB GLOBAL	USD/GBP	-1,738,403.68
July 24, 2007	CSFB GLOBAL	JPY/USD	1,899,439.28
August 17, 2007	CSFB GLOBAL	USD/JPY	-2,030,044.63
October 23, 2007	CSFB GLOBAL	GBP/USD	1,717,540.00
October 23, 2007	CSFB GLOBAL	USD/GBP	-1,712,518.20
January 29, 2008	CSFB GLOBAL	GBP/USD	1,675,762.00
January 29, 2008	CSFB GLOBAL	USD/GBP	-1,667,153.20
April 22, 2008	CSFB GLOBAL	GBP/USD	1,671,964.00
April 22, 2008	CSFB GLOBAL	USD/GBP	-1,661,498.40
July 23, 2008	CSFB GLOBAL	GBP/USD	1,678,716.00
July 23, 2008	CSFB GLOBAL	USD/GBP	-1,667,617.40
October 21, 2008	CSFB GLOBAL	GBP/USD	1,431,846.00
October 21, 2008	CSFB GLOBAL	USD/GBP	-1,427,170.24
January 20, 2009	CSFB GLOBAL	GBP/USD	1,235,067.40

Date	CREDIT SUISSE	Currency Pair	\$US Value
January 20, 2009	CSFB GLOBAL	USD/GBP	-1,233,590.40
March 12, 2009	CSFB GLOBAL	USD/EUR	-30,648.00
April 29, 2009	CSFB GLOBAL	GBP/USD	1,240,595.60
April 29, 2009	CSFB GLOBAL	USD/GBP	-1,241,017.60
August 4, 2009	CSFB GLOBAL	GBP/USD	1,430,580.00
August 4, 2009	CSFB GLOBAL	USD/GBP	-1,430,411.20
September 11, 2009	CSFB GLOBAL	GBP/USD	1,409,800.72

Date	DEUTSCHE BANK	Currency Pair	\$US Value
August 1, 2003	DEUTSCHE BANK LONDON	USD/CAD	-824,015.54
January 9, 2004	DEUTSCHE BANK LONDON	USD/EUR	-177,509.58
March 19, 2004	DEUTSCHE BANK LONDON	EUR/USD	386,518.08
March 19, 2004	DEUTSCHE BANK LONDON	USD/EUR	-387,038.45
April 23, 2004	DEUTSCHE BANK LONDON	EUR/USD	371,910.01
April 23, 2004	DEUTSCHE BANK LONDON	USD/EUR	-372,725.06
July 27, 2004	DEUTSCHE BANK LONDON	EUR/USD	381,188.96
July 27, 2004	DEUTSCHE BANK LONDON	USD/EUR	-381,565.13
October 22, 2004	DEUTSCHE BANK LONDON	EUR/USD	395,608.93
November 11, 2004	DEUTSCHE BANK LONDON	EUR/USD	3,894,019.75
November 11, 2004	DEUTSCHE BANK LONDON	USD/EUR	-3,894,715.23
January 25, 2005	DEUTSCHE BANK LONDON	EUR/USD	3,539,742.53
February 16, 2005	DEUTSCHE BANK LONDON	EUR/USD	2,493,821.34
February 16, 2005	DEUTSCHE BANK LONDON	USD/EUR	-2,490,381.06
March 7, 2005	DEUTSCHE BANK LONDON	EUR/USD	6,730,825.75
April 5, 2005	DEUTSCHE BANK LONDON	EUR/USD	2,285,449.76
April 5, 2005	DEUTSCHE BANK LONDON	USD/EUR	-2,283,765.09
July 26, 2005	DEUTSCHE BANK LONDON	EUR/USD	4,952,459.07
August 10, 2005	DEUTSCHE BANK LONDON	EUR/USD	4,436,282.22
August 10, 2005	DEUTSCHE BANK LONDON	USD/EUR	-4,418,877.76
October 25, 2005	DEUTSCHE BANK LONDON	USD/EUR	-654,553.57

Date	J.ARON - NEW YORK (GOLDMAN SACHS)	Currency Pair	\$US Value
December 3, 2004	J.ARON - NEW YORK	EUR/USD	6,005,574.96
December 3, 2004	J.ARON - NEW YORK	USD/EUR	-6,003,462.96
January 11, 2005	J.ARON - NEW YORK	EUR/USD	183,128.85
January 11, 2005	J.ARON - NEW YORK	USD/EUR	-183,088.50
January 25, 2005	J.ARON - NEW YORK	EUR/USD	6,059,802.69
January 25, 2005	J.ARON - NEW YORK	USD/EUR	-6,050,351.91
February 16, 2005	J.ARON - NEW YORK	USD/EUR	-6,041,735.02

Date	UBS	Currency Pair	\$US Value
August 1, 2003	UNION BANK OF SWIT NEW YK DTC 642	USD/AUD	-1,830,007.89
August 22, 2003	UNION BANK OF SWIT NEW YK DTC 642	EUR/USD	4,430,790.95
August 22, 2003	UNION BANK OF SWIT NEW YK DTC 642	USD/EUR	-4,420,146.85
November 3, 2003	UNION BANK OF SWIT NEW YK DTC 642	EUR/USD	4,703,596.89
November 3, 2003	UNION BANK OF SWIT NEW YK DTC 642	USD/EUR	-4,692,343.39
January 28, 2004	UNION BANK OF SWIT NEW YK DTC 642	EUR/USD	5,119,488.83
January 28, 2004	UNION BANK OF SWIT NEW YK DTC 642	USD/EUR	-5,106,732.16
April 22, 2004	UNION BANK OF SWIT NEW YK DTC 642	EUR/USD	4,800,795.43
April 22, 2004	UNION BANK OF SWIT NEW YK DTC 642	USD/EUR	-4,789,846.63
July 27, 2004	UNION BANK OF SWIT NEW YK DTC 642	EUR/USD	4,937,421.84
July 27, 2004	UNION BANK OF SWIT NEW YK DTC 642	USD/EUR	-4,932,038.85
October 22, 2004	UNION BANK OF SWIT NEW YK DTC 642	EUR/USD	5,088,612.81
October 22, 2004	UNION BANK OF SWIT NEW YK DTC 642	EUR/USD	5,129,239.16
October 22, 2004	UNION BANK OF SWIT NEW YK DTC 642	USD/EUR	-5,129,076.65
January 25, 2005	UNION BANK OF SWIT NEW YK DTC 642	USD/EUR	-5,566,660.78
February 16, 2005	UNION BANK OF SWIT NEW YK DTC 642	EUR/USD	5,551,260.47
March 7, 2005	UNION BANK OF SWIT NEW YK DTC 642	AUD/USD	736,076.52
March 7, 2005	UNION BANK OF SWIT NEW YK DTC 642	CAD/USD	734,982.09
April 26, 2005	UNION BANK OF SWIT NEW YK DTC 642	USD/AUD	-720,207.39
April 26, 2005	UNION BANK OF SWIT NEW YK DTC 642	CAD/USD	730,618.88
July 26, 2005	UBS AG LONDON BRANCH	AUD/USD	704,999.08
October 25, 2005	UBS AG LONDON BRANCH	AUD/USD	699,019.07
October 25, 2005	UBS AG LONDON BRANCH	CAD/USD	763,948.71
October 25, 2005	UBS AG LONDON BRANCH	USD/CAD	-766,016.05
January 23, 2006	UBS AG LONDON BRANCH	AUD/USD	699,638.01
January 23, 2006	UBS AG LONDON BRANCH	CAD/USD	787,863.01
April 25, 2006	UBS AG LONDON BRANCH	AUD/USD	692,424.77
April 25, 2006	UBS AG LONDON BRANCH	CAD/USD	796,061.04
April 25, 2006	UBS AG LONDON BRANCH	USD/CAD	-798,073.99
July 25, 2006	UBS AG LONDON BRANCH	AUD/USD	702,244.08
July 25, 2006	UBS AG LONDON BRANCH	USD/AUD	-701,266.81
August 2, 2006	UBS AG LONDON BRANCH	USD/AUD	-716,015.63
October 24, 2006	UBS AG LONDON BRANCH	CAD/USD	802,315.31
November 17, 2006	UBS AG LONDON BRANCH	USD/CAD	-164,440.01
January 23, 2007	UBS AG LONDON	CAD/USD	766,340.08
January 23, 2007	UBS AG LONDON	USD/CAD	-768,316.13
April 24, 2007	UBS AG LONDON	CAD/USD	809,123.70
April 24, 2007	UBS AG LONDON	USD/CAD	-811,130.69
July 24, 2007	UBS AG LONDON	CAD/USD	867,637.91
July 24, 2007	UBS AG LONDON	USD/CAD	-869,019.69
October 23, 2007	UBS AG LONDON	CAD/USD	935,758.24
October 23, 2007	UBS AG LONDON	USD/CAD	-935,903.27
January 29, 2008	UBS AG LONDON	CAD/USD	907,629.24
January 29, 2008	UBS AG LONDON	USD/CAD	-905,922.69
February 11, 2008	UBS AG LONDON	EUR/USD	91,130.89
February 11, 2008	UBS AG LONDON	USD/EUR	-90,880.41
April 22, 2008	UBS AG LONDON	CAD/USD	900,411.51
April 22, 2008	UBS AG LONDON	USD/CAD	-899,597.76
April 22, 2008	UBS AG LONDON	EUR/USD	99,565.80
July 21, 2008	UBS AG LONDON	CAD/USD	902,205.16

Date	UBS	Currency Pair	\$US Value
October 21, 2008	UBS AG LONDON	CAD/USD	756,420.86
October 21, 2008	UBS AG LONDON	USD/CAD	-758,320.62
January 20, 2009	UBS AG LONDON	CAD/USD	715,775.57
January 20, 2009	UBS AG LONDON	USD/CAD	-715,999.05
April 28, 2009	UBS AG LONDON	CAD/USD	739,439.98
April 28, 2009	UBS AG LONDON	USD/CAD	-740,225.53
August 11, 2009	UBS AG LONDON	CAD/USD	829,120.35
August 11, 2009	UBS AG LONDON	USD/CAD	-829,454.41
September 11, 2009	UBS AG LONDON	CAD/USD	842,685.07
September 11, 2009	UBS AG LONDON	USD/CAD	-131,356.86
October 1, 2009	UBS AG LONDON	USD/EUR	-127,615.86

Date	BANK OF AMERICA	Currency Pair	\$US Value
June 2, 2003	BANK OF AMERICA SAN FRANCISCO	USD/GBP	-272,494.66
June 20, 2003	BANK OF AMERICA SAN FRANCISCO	JPY/USD	41,733.90
June 23, 2003	BANK OF AMERICA SAN FRANCISCO	USD/CHF	-332,993.71
June 26, 2003	BANK OF AMERICA SAN FRANCISCO	HKD/USD	5,782.48
August 6, 2003	BANK OF AMERICA SAN FRANCISCO	AUD/USD	67,829.38
August 19, 2003	BANK OF AMERICA SAN FRANCISCO	CAD/USD	218,312.14
September 9, 2003	BANK OF AMERICA SAN FRANCISCO	DKK/USD	54,367.11
September 18, 2003	BANK OF AMERICA SAN FRANCISCO	NZD/USD	243,685.09
November 10, 2003	BANK OF AMERICA SAN FRANCISCO	EUR/USD	-33,951.50
December 19, 2003	BANK OF AMERICA SAN FRANCISCO	EUR/USD	11,765.38
January 2, 2004	BANK OF AMERICA SAN FRANCISCO	EUR/USD	3,636.10
February 6, 2004	BANK OF AMERICA SAN FRANCISCO	GBP/USD	750,335.26
March 9, 2004	BANK OF AMERICA SAN FRANCISCO	AUD/USD	215,989.32
May 12, 2004	BANK OF AMERICA SAN FRANCISCO	USD/GBP	483,426.52
August 10, 2004	BANK OF AMERICA SAN FRANCISCO	USD/DKK	-646,958.96
September 30, 2004	BANK OF AMERICA SAN FRANCISCO	USD/EUR	180,057.48
October 27, 2004	BANK OF AMERICA SAN FRANCISCO	USD/CAD	-222,941.34
October 29, 2004	BANK OF AMERICA SAN FRANCISCO	USD/GBP	158,626.03
November 22, 2004	BANK OF AMERICA SAN FRANCISCO	NOK/USD	1,312.53
December 1, 2004	BANK OF AMERICA SAN FRANCISCO	JPY/USD	4,930.48
March 9, 2005	BANK OF AMERICA SAN FRANCISCO	SGD/USD	79,933.90
March 11, 2005	BANK OF AMERICA SAN FRANCISCO	USD/EUR	-1,013,995.10
March 29, 2005	BANK OF AMERICA SAN FRANCISCO	JPY/USD	30,122.97
May 26, 2005	BANK OF AMERICA SAN FRANCISCO	USD/GBP	-282,022.59
June 3, 2005	BANK OF AMERICA SAN FRANCISCO	ZAR/USD	10,092.08
June 3, 2005	BANK OF AMERICA SAN FRANCISCO	USD/SEK	-79,437.56
July 25, 2005	BANK OF AMERICA SAN FRANCISCO	USD/AUD	-97,315.64
July 25, 2005	BANK OF AMERICA SAN FRANCISCO	DKK/USD	309,193.71
October 3, 2005	BANK OF AMERICA SAN FRANCISCO	USD/HKD	-253,604.35
October 11, 2005	BANK OF AMERICA SAN FRANCISCO	NOK/USD	407,163.00
January 20, 2006	BANK OF AMERICA SAN FRANCISCO	GBP/USD	414,885.92
February 23, 2006	BANK OF AMERICA SAN FRANCISCO	USD/SEK	-5,693.46
February 28, 2006	BANK OF AMERICA SAN FRANCISCO	CAD/USD	72,705.52
April 17, 2006	BANK OF AMERICA SAN FRANCISCO	EUR/USD	20,876.67
April 17, 2006	BANK OF AMERICA SAN FRANCISCO	USD/JPY	-59,980.72
May 9, 2006	BANK OF AMERICA SAN FRANCISCO	NOK/USD	154,649.65
August 24, 2006	BANK OF AMERICA SAN FRANCISCO	HKD/USD	479,887.97
October 23, 2006	BANK OF AMERICA SAN FRANCISCO	SGD/USD	159,734.33
October 27, 2006	BANK OF AMERICA SAN FRANCISCO	USD/CHF	-474,822.50
November 27, 2006	BANK OF AMERICA SAN FRANCISCO	USD/DKK	-33,953.26
January 15, 2007	BANK OF AMERICA	USD/CAD	-12,006.85
January 16, 2007	BANK OF AMERICA	GBP/USD	824,810.32
January 19, 2007	BANK OF AMERICA	USD/NOK	-268,494.94
March 23, 2007	BANK OF AMERICA	USD/CHF	-452,198.74
March 27, 2007	BANK OF AMERICA	USD/GBP	154,019.61
May 21, 2007	BANK OF AMERICA	CHF/USD	551,839.13
June 6, 2007	BANK OF AMERICA	EUR/USD	16,350.23
July 19, 2007	BANK OF AMERICA	USD/HKD	810,106.12

Date	BANK OF AMERICA	Currency Pair	\$US Value
September 3, 2007	BANK OF AMERICA	USD/HKD	-989,038.05
October 12, 2007	BANK OF AMERICA	USD/GBP	-254,006.28
February 1, 2008	BANK OF AMERICA	USD/EUR	1,680,499.39
February 4, 2008	BANK OF AMERICA	USD/GBP	-2,707,013.93
February 26, 2008	BANK OF AMERICA	USD/EUR	-2,850,679.76
February 26, 2008	BANK OF AMERICA	CHF/USD	279,850.01
April 22, 2008	BANK OF AMERICA	AUD/USD	50,102.57
May 9, 2008	BANK OF AMERICA	HKD/USD	407,577.79
June 25, 2008	BANK OF AMERICA	USD/SGD	-36,680.40
October 13, 2008	BANK OF AMERICA	USD/EUR	220,580.03
October 29, 2008	BANK OF AMERICA	NOK/USD	5,248.46
November 12, 2008	BANK OF AMERICA	USD/GBP	11,379.71
January 28, 2009	BANK OF AMERICA	CAD/USD	-19,872.57
February 5, 2009	BANK OF AMERICA	USD/GBP	-10,339.12
April 1, 2009	BANK OF AMERICA	USD/GBP	-46,454.02
April 1, 2009	BANK OF AMERICA	USD/NOK	-98,680.22
May 12, 2009	BANK OF AMERICA	USD/JPY	-19,276.33
June 1, 2009	BANK OF AMERICA	EUR/USD	596,314.44
June 16, 2009	BANK OF AMERICA	USD/AUD	-218,393.98
September 11, 2009	BANK OF AMERICA	CHF/USD	174,959.95
November 2, 2009	BANK OF AMERICA	USD/JPY	298,242.62
November 10, 2009	BANK OF AMERICA	HKD/USD	125,244.52
February 1, 2010	BANK OF AMERICA	USD/EUR	-71,215.76
February 8, 2010	BANK OF AMERICA	AUD/USD	105,731.78
March 2, 2010	BANK OF AMERICA	USD/EUR	37,139.16
May 7, 2010	BANK OF AMERICA	GBP/USD	8,207.34
May 27, 2010	BANK OF AMERICA	AUD/USD	-260,942.34
October 5, 2010	BANK OF AMERICA	SGD/USD	443,981.57
October 19, 2010	BANK OF AMERICA	EUR/USD	-52,908.20
October 21, 2010	BANK OF AMERICA	USD/AUD	506,450.81
October 26, 2010	BANK OF AMERICA	USD/EUR	5,138,053.67
October 27, 2010	BANK OF AMERICA	USD/SEK	-766,685.05

Date	BARCLAYS	Currency Pair	\$US Value
January 8, 2008	BARCLAYS	JPN/USD	124,559.93
February 27, 2008	BARCLAYS	CHF/USD	131,074.48
May 28, 2008	BARCLAYS	USD/SGD	-142,044.71
November 5, 2008	BARCLAYS	USD/GBP	57,534.17
November 6, 2008	BARCLAYS	USD/EUR	1,968,790.60
November 18, 2008	BARCLAYS	EUR/USD	212,741.56
November 18, 2008	BARCLAYS	USD/GBP	8,841.10
December 2, 2008	BARCLAYS	USD/GBP	-3,245.43
December 2, 2008	BARCLAYS	EUR/USD	43,272.28
December 31, 2008	BARCLAYS	CAD/USD	-9,567.90
February 3, 2009	BARCLAYS	USD/GBP	-28,188.11
February 9, 2009	BARCLAYS	USD/GBP	-29,576.26
April 28, 2009	BARCLAYS	ZAR/USD	221,675.59
May 12, 2009	BARCLAYS	EUR/USD	21,182.33
May 14, 2009	BARCLAYS	USD/JPY	-40,647.91
July 8, 2009	BARCLAYS	USD/CAD	-68,533.41
August 6, 2009	BARCLAYS	GBP/USD	93,449.86
September 10, 2009	BARCLAYS	EUR/USD	58,622.55
November 4, 2009	BARCLAYS	HKD/USD	386,046.99
December 23, 2009	BARCLAYS	USD/EUR	-1,722,758.11
January 28, 2010	BARCLAYS	USD/EUR	-41,026.71
April 16, 2010	BARCLAYS	EUR/USD	1,708,607.66
April 19, 2010	BARCLAYS	SEK/USD	298,649.17
April 27, 2010	BARCLAYS	SEK/USD	633,615.98
May 13, 2010	BARCLAYS	USD/CAD	-639,101.97
May 14, 2010	BARCLAYS	GBP/USD	20,686.34
June 8, 2010	BARCLAYS	USD/EUR	-85,462.01
August 23, 2010	BARCLAYS	NOK/USD	264,008.59
September 24, 2010	BARCLAYS	AUD/USD	97,916.76
October 8, 2010	BARCLAYS	JPN/USD	295,982.27

Date	BNP PARIBAS	Currency Pair	\$US Value
January 17, 2003	BNP PARIBAS, PARIS	CAD/USD	188,456.32
May 13, 2003	BNP PARIBAS, PARIS	USD/AUD	-13,370.51
May 13, 2003	BNP PARIBAS, PARIS	USD/DKK	-89,364.44
May 13, 2003	BNP PARIBAS, PARIS	USD/HKD	-8,140.52
May 13, 2003	BNP PARIBAS, PARIS	USD/SEK	-83,957.06
July 28, 2003	BNP PARIBAS, PARIS	GBP/USD	202,867.23
August 11, 2003	BNP PARIBAS, PARIS	JPY/USD	32,302.35
November 4, 2003	BNP PARIBAS, PARIS	EUR/USD	280,664.61
December 2, 2003	BNP PARIBAS, PARIS	USD/MXN	-40,226.52
December 24, 2003	BNP PARIBAS, PARIS	USD/NZD	-11,992.09
January 2, 2004	BNP PARIBAS, PARIS	DKK/USD	-5,448.03
January 16, 2004	BNP PARIBAS, PARIS	DKK/USD	17,393.62
February 3, 2004	BNP PARIBAS, PARIS	USD/EUR	167,238.10
March 24, 2004	BNP PARIBAS, PARIS	USD/AUD	-22,253.17
May 10, 2004	BNP PARIBAS, PARIS	HKD/USD	306,161.68
May 13, 2004	BNP PARIBAS, PARIS	DKK/USD	-145,230.46
July 16, 2004	BNP PARIBAS, PARIS	USD/JPY	-35,351.53
September 10, 2004	BNP PARIBAS, PARIS	AUD/USD	-317,814.36
September 15, 2004	BNP PARIBAS, PARIS	USD/NZD	-1,373.30
October 28, 2004	BNP PARIBAS, PARIS	USD/GBP	-164,299.19

Date	CITIBANK	Currency Pair	\$US Value
January 27, 2003	CITIBANK NEW YORK DTC 908	USD/GBP	-30,249.86
January 27, 2003	CITIBANK NEW YORK DTC 908	USD/CHF	-12,264.43
February 26, 2003	CITIBANK NEW YORK DTC 908	USD/JPY	-198,950.33
May 22, 2003	CITIBANK NEW YORK DTC 908	SGD/USD	403,101.40
June 5, 2003	CITIBANK NEW YORK DTC 908	EUR/USD	15,452.94
July 22, 2003	CITIBANK NEW YORK DTC 908	CAD/USD	199,915.24
July 23, 2003	CITIBANK NEW YORK DTC 908	AUD/USD	5,570.38
October 21, 2003	CITIBANK NEW YORK DTC 908	USD/HKD	-336.83
November 13, 2003	CITIBANK NEW YORK DTC 908	USD/MXN	-34,841.18
December 30, 2003	CITIBANK NEW YORK DTC 908	DKK/USD	15,704.20
January 6, 2004	CITIBANK NEW YORK DTC 908	USD/MXN	-43,920.51
March 10, 2004	CITIBANK NEW YORK DTC 908	AUD/USD	23,690.10
May 14, 2004	CITIBANK NEW YORK DTC 908	HKD/USD	62,499.69
May 19, 2004	CITIBANK NEW YORK DTC 908	USD/EUR	-604,686.87
June 3, 2004	CITIBANK NEW YORK DTC 908	GBP/USD	97,618.95
July 1, 2004	CITIBANK NEW YORK DTC 908	USD/CAD	-148,352.99
July 5, 2004	CITIBANK NEW YORK DTC 908	JPY/USD	8,826.18
August 31, 2004	CITIBANK NEW YORK DTC 908	NZD/USD	20,676.98
September 29, 2004	CITIBANK NEW YORK DTC 908	DKK/USD	310,829.41
September 29, 2004	CITIBANK NEW YORK DTC 908	SGD/USD	75,467.18
March 2, 2005	CITIBANK NEW YORK DTC 908	AUD/USD	388,494.44
March 14, 2005	CITIBANK NEW YORK DTC 908	NOK/USD	619,190.61
April 5, 2005	CITIBANK NEW YORK DTC 908	SGD/USD	50,196.24
May 28, 2005	CITIBANK NEW YORK DTC 908	ZAR/USD	34,787.34
June 8, 2005	CITIBANK NEW YORK DTC 908	USD/SEK	-235,483.15
July 22, 2005	CITIBANK NEW YORK DTC 908	USD/JPY	-9,454.39
August 31, 2005	CITIBANK NEW YORK DTC 908	EUR/USD	277,378.85
September 22, 2005	CITIBANK NEW YORK DTC 908	USD/CAD	-268,220.02
October 11, 2005	CITIBANK NEW YORK DTC 908	USD/HKD	-113,960.05
December 5, 2005	CITIBANK NEW YORK DTC 908	GBP/USD	2,155,207.91
February 13, 2006	CITIBANK NEW YORK DTC 908	GBP/USD	1,205,960.19
February 24, 2006	CITIBANK NEW YORK DTC 908	USD/DKK	-420,021.84
March 3, 2006	CITIBANK NEW YORK DTC 908	CAD/USD	31,414.08
March 6, 2006	CITIBANK NEW YORK DTC 908	USD/SEK	-151,933.46
March 22, 2006	CITIBANK NEW YORK DTC 908	EUR/USD	1,020,647.31
April 11, 2006	CITIBANK NEW YORK DTC 908	GBP/USD	2,057,581.72
May 3, 2006	CITIBANK NEW YORK DTC 908	NOK/USD	478,191.89
July 12, 2006	CITIBANK NEW YORK DTC 908	USD/EUR	-12,020.38
August 15, 2006	CITIBANK NEW YORK DTC 908	NOK/USD	377,444.20
December 6, 2006	CITIBANK NEW YORK DTC 908	USD/AUD	-115,645.94
January 3, 2007	CITIBANK	EUR/USD	6,328.53
January 22, 2007	CITIBANK	USD/NOK	-54,769.24
January 29, 2007	CITIBANK	GBP/USD	916,921.58
March 6, 2007	CITIBANK	SEK/USD	6,553.28
April 9, 2007	CITIBANK	USD/GBP	-1,057,570.75
May 13, 2007	CITIBANK	USD/DKK	-756,626.79
May 22, 2007	CITIBANK	USD/CAD	-271,101.46
June 12, 2007	CITIBANK	EUR/USD	30,696.44

Date	CITIBANK	Currency Pair	\$US Value
June 22, 2007	CITIBANK	USD/EUR	-394,737.50
August 3, 2007	CITIBANK	JPY/USD	77,999.34
February 2, 2009	CITIBANK	USD/GBP	-250,968.45
February 5, 2009	CITIBANK	CAD/USD	330,421.97
May 6, 2009	CITIBANK	USD/EUR	-549,200.91
May 11, 2009	CITIBANK	USD/JPY	-75,139.02
May 28, 2009	CITIBANK	JPY/USD	558,058.89
June 29, 2009	CITIBANK	AUD/USD	273,285.11
June 29, 2009	CITIBANK	GBP/USD	4,858,621.27
June 29, 2009	CITIBANK	SGD/USD	533,037.31
September 1, 2009	CITIBANK	EUR/USD	198,916.58
December 23, 2009	CITIBANK	USD/GBP	-1,684,703.62
March 30, 2010	CITIBANK, N.A.	USD/EUR	-1,466,967.14
May 5, 2010	CITIBANK, N.A.	USD/EUR	-589,290.81
October 6, 2010	CITIBANK, N.A.	SGD/USD	748,241.81
October 27, 2010	CITIBANK, N.A.	USD/HKD	-4,759,316.39

Date	CREDIT SUISSE	Currency Pair	\$US Value
January 8, 2009	CREDIT SUISSE	USD/JPY	-49,227.32
January 9, 2009	CREDIT SUISSE	CAD/USD	79,181.89
January 15, 2009	CREDIT SUISSE	GBP/USD	605,007.99
February 5, 2009	CREDIT SUISSE	USD/GBP	-9,924.80
February 24, 2009	CREDIT SUISSE	AUD/USD	5,006.49
April 16, 2009	CREDIT SUISSE	USD/EUR	-868,944.70
May 5, 2009	CREDIT SUISSE	NOK/USD	1,157,805.59
May 11, 2009	CREDIT SUISSE	EUR/USD	41,529.10
May 20, 2009	CREDIT SUISSE	USD/JPY	-471,576.86
June 9, 2009	CREDIT SUISSE	CHF/USD	1,117,527.90

Date	DEUTSCHE BANK	Currency Pair	\$US Value
January 29, 2003	DEUTSCHE BANK LONDON	CHF/USD	154,276.37
February 20, 2003	DEUTSCHE BANK LONDON	DKK/USD	100,325.47
March 3, 2003	DEUTSCHE BANK LONDON	GBP/USD	29,592.01
May 30, 2003	DEUTSCHE BANK LONDON	USD/EUR	-384,231.03
June 24, 2003	DEUTSCHE BANK LONDON	JPY/USD	71,988.78
July 21, 2003	DEUTSCHE BANK LONDON	JPY/USD	7,767.97
August 6, 2003	DEUTSCHE BANK LONDON	HKD/USD	24,897.62
August 18, 2003	DEUTSCHE BANK LONDON	CAD/USD	158,533.90
November 12, 2003	DEUTSCHE BANK LONDON	USD/MXN	-20,647.65
November 18, 2003	DEUTSCHE BANK LONDON	EUR/USD	11,560.63
January 7, 2004	DEUTSCHE BANK LONDON	USD/MXN	-39,211.85
January 14, 2004	DEUTSCHE BANK LONDON	DKK/USD	21,701.65
March 31, 2004	DEUTSCHE BANK LONDON	AUD/USD	46,129.93
April 14, 2004	DEUTSCHE BANK LONDON	GBP/USD	1,483,999.87
June 7, 2004	DEUTSCHE BANK LONDON	NOK/USD	121,597.26
June 25, 2004	DEUTSCHE BANK LONDON	EUR/USD	1,057,634.10
July 9, 2004	DEUTSCHE BANK LONDON	USD/NZD	-38,138.24
September 9, 2004	DEUTSCHE BANK LONDON	USD/CAD	-88,069.91
September 29, 2004	DEUTSCHE BANK LONDON	GBP/USD	2,722,379.90
November 15, 2004	DEUTSCHE BANK LONDON	JPY/USD	476,997.03
March 4, 2005	DEUTSCHE BANK LONDON	NOK/USD	169,202.35
March 8, 2005	DEUTSCHE BANK LONDON	HKD/USD	599,045.66
March 28, 2005	DEUTSCHE BANK LONDON	GBP/USD	1,238,724.49
May 16, 2005	DEUTSCHE BANK LONDON	USD/AUD	-104,593.39
May 16, 2005	DEUTSCHE BANK LONDON	USD/DKK	-79,304.48
May 16, 2005	DEUTSCHE BANK LONDON	USD/CHF	-116,087.98
May 31, 2005	DEUTSCHE BANK LONDON	ZAR/USD	78,034.62
June 30, 2005	DEUTSCHE BANK LONDON	USD/JPY	-18,811.19
July 8, 2005	DEUTSCHE BANK LONDON	EUR/USD	655,443.93
September 28, 2005	DEUTSCHE BANK LONDON	SGD/USD	61,614.50
January 18, 2006	DEUTSCHE BANK LONDON	GBP/USD	2,809,444.74
March 7, 2006	DEUTSCHE BANK LONDON	EUR/USD	584,469.73
May 12, 2006	DEUTSCHE BANK LONDON	NOK/USD	5,145.00
June 12, 2006	DEUTSCHE BANK LONDON	USD/HKD	-481,205.41
August 2, 2006	DEUTSCHE BANK LONDON	SGD/USD	1,106,361.90
August 14, 2006	DEUTSCHE BANK LONDON	USD/ZAR	-178,993.81
October 17, 2006	DEUTSCHE BANK LONDON	USD/EUR	-574,621.78
November 28, 2006	DEUTSCHE BANK LONDON	USD/DKK	-87,812.65
November 28, 2006	DEUTSCHE BANK LONDON	JPY/USD	208,565.66
December 6, 2006	DEUTSCHE BANK LONDON	USD/AUD	-363,893.75
January 16, 2009	DEUTSCHE BANK	JPY/USD	592,856.09
February 12, 2009	DEUTSCHE BANK	AUD/USD	81,503.70
February 12, 2009	DEUTSCHE BANK	USD/GBP	-39,296.57
March 31, 2009	DEUTSCHE BANK	USD/NOK	-40,401.82
April 20, 2009	DEUTSCHE BANK	USD/CHF	-457,764.34
April 22, 2009	DEUTSCHE BANK	EUR/USD	1,166,088.44
May 28, 2009	DEUTSCHE BANK	SGD/USD	771,857.78
June 9, 2009	DEUTSCHE BANK	GBP/USD	61,900.17

Baker Hughes Incorporated Thrift Plan

Baker Hughes International Equity Fund

Date	DEUTSCHE BANK	Currency Pair	\$US Value
June 19, 2009	DEUTSCHE BANK	USD/CAD	-21,335.30
August 6, 2009	DEUTSCHE BANK	EUR/USD	126,871.88

Date	HSBC	Currency Pair	\$US Value
February 18, 2003	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	USD/CAD	-22,145.18
March 21, 2003	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	SEK/USD	105,221.29
July 30, 2003	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	HKD/USD	23,457.69
August 1, 2003	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	AUD/USD	14,856.21
September 4, 2003	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	GBP/USD	594,358.46
September 12, 2003	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	DKK/USD	9,079.22
September 29, 2003	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	USD/JPY	-180,457.85
October 20, 2003	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	EUR/USD	1,067,923.73
November 5, 2003	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	CHF/USD	373,286.42
February 19, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	GBP/USD	339,958.88
March 19, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	USD/NZD	-5,464.12
April 1, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	USD/JPY	-573,045.81
April 5, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	AUD/USD	45,677.12
August 26, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	USD/NZD	-31,941.52
September 21, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	USD/GBP	-6,878.07
October 28, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	JPY/USD	837,477.06
October 29, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	USD/CAD	-165,846.24
November 11, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	EUR/USD	307,134.19
November 15, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	GBP/USD	899,890.98
December 1, 2004	HSBC BANK USA NEW YORK / MARINE MIDLAND BANK	USD/EUR	-670,573.68
March 2, 2005	HSBC BANK USA NEW YORK	EUR/USD	590,738.87
March 7, 2005	HSBC BANK USA NEW YORK	SGD/USD	314,253.77
March 14, 2005	HSBC BANK USA NEW YORK	JPY/USD	1,773,946.74
May 19, 2005	HSBC BANK USA NEW YORK	GBP/USD	536,853.33
May 19, 2005	HSBC BANK USA NEW YORK	JPY/USD	117,140.06
June 22, 2005	HSBC BANK USA NEW YORK	USD/AUD	-157,976.44
July 20, 2005	HSBC BANK USA NEW YORK	USD/GBP	-52,097.39
July 20, 2005	HSBC BANK USA NEW YORK	USD/HKD	-45,923.05
August 23, 2005	HSBC BANK USA NEW YORK	USD/JPY	-9,782.77

Date	HSBC	Currency Pair	\$US Value
September 15, 2005	HSBC BANK USA NEW YORK	EUR/USD	851,551.27
January 13, 2006	HSBC BANK USA NEW YORK	USD/JPY	-1,303,211.34
March 20, 2006	HSBC BANK USA NEW YORK	GBP/USD	1,095,781.15
May 16, 2006	HSBC BANK USA NEW YORK	EUR/USD	1,143,105.97
June 14, 2006	HSBC BANK USA NEW YORK	GBP/USD	274,855.72
July 25, 2006	HSBC BANK USA NEW YORK	EUR/USD	234,382.03
October 24, 2006	HSBC BANK USA NEW YORK	USD/SEK	-189,372.97
November 20, 2006	HSBC BANK USA NEW YORK	USD/GBP	-244,456.93
December 7, 2006	HSBC BANK USA NEW YORK	USD/AUD	-72,465.79
December 8, 2006	HSBC BANK USA NEW YORK	USD/DKK	-55,695.05
December 12, 2006	HSBC BANK USA NEW YORK	EUR/USD	971,245.40
January 4, 2007	HSBC BANK USA	USD/EUR	-1,063,611.43
January 15, 2007	HSBC BANK USA	USD/EUR	-613,431.38
January 16, 2007	HSBC BANK USA	EUR/USD	2,313,294.16
July 20, 2007	HSBC BANK USA	USD/EUR	-146,471.54
July 23, 2007	HSBC BANK USA	JPY/USD	6,672.36
August 1, 2007	HSBC BANK USA	JPY/USD	729,711.22
November 20, 2007	HSBC BANK USA	USD/AUD	-2,040,237.05
November 20, 2007	HSBC BANK USA	GBP/USD	1,857,130.22
December 3, 2007	HSBC BANK USA	GBP/USD	29,592.86
December 11, 2007	HSBC BANK USA	CHF/USD	364,224.97
January 22, 2009	HSBC BANK USA	CHF/USD	219,581.01
May 1, 2009	HSBC BANK USA	USD/JPY	-21,251.87
May 7, 2009	HSBC BANK USA	USD/JPY	-109,926.30
June 9, 2009	HSBC BANK USA	GBP/USD	111,522.54
June 10, 2009	HSBC BANK USA	USD/SEK	-194,876.74
June 30, 2009	HSBC BANK USA	EUR/USD	5,846,760.73
July 1, 2009	HSBC BANK USA	USD/CAD	-367,065.61
July 28, 2009	HSBC BANK USA	USD/GBP	-537,486.68
September 1, 2009	HSBC BANK USA	SGD/USD	78,563.13
September 8, 2009	HSBC BANK USA	CHF/USD	108,623.94
April 28, 2010	HSBC BANK USA	USD/EUR	-757,682.57
April 30, 2010	HSBC BANK USA	USD/EUR	-1,335,571.48
April 30, 2010	HSBC BANK USA	USD/EUR	-608,175.57
May 6, 2010	HSBC BANK USA	GBP/USD	312,976.73
May 20, 2010	HSBC BANK USA	GBP/USD	15,770.28
July 30, 2010	HSBC BANK USA	JPY/USD	364,856.77
October 15, 2010	HSBC BANK USA	EUR/USD	177,148.33
October 22, 2010	HSBC BANK USA	USD/AUD	-258,627.07
October 27, 2010	HSBC BANK USA	USD/CHF	-3,378,123.09
October 28, 2010	HSBC BANK USA	USD/SGD	-3,195,384.03

Date	JPMORGAN CHASE	Currency Pair	\$US Value
March 4, 2003	CHASE MANHATTAN BANK NEW YORK	GBP/USD	292,003.43
August 4, 2003	CHASE MANHATTAN BANK NEW YORK	AUD/USD	69,098.94
August 7, 2003	CHASE MANHATTAN BANK NEW YORK	HKD/USD	12,391.57
August 21, 2003	CHASE MANHATTAN BANK NEW YORK	USD/GBP	-464,095.52
September 4, 2003	CHASE MANHATTAN BANK NEW YORK	EUR/USD	517,283.50
September 18, 2003	CHASE MANHATTAN BANK NEW YORK	DKK/USD	236,534.98
November 4, 2003	CHASE MANHATTAN BANK NEW YORK	CAD/USD	279,769.52
November 6, 2003	CHASE MANHATTAN BANK NEW YORK	SEK/USD	135,955.25
November 14, 2003	CHASE MANHATTAN BANK NEW YORK	USD/MXN	-34,822.77
December 24, 2003	CHASE MANHATTAN BANK NEW YORK	USD/JPY	-21,823.07
January 2, 2004	CHASE MANHATTAN BANK NEW YORK	USD/MXN	-7,063.33
February 19, 2004	CHASE MANHATTAN BANK NEW YORK	AUD/USD	352,393.16
March 23, 2004	CHASE MANHATTAN BANK NEW YORK	NOK/USD	537,875.05
April 14, 2004	CHASE MANHATTAN BANK NEW YORK	DKK/USD	247,755.77
May 20, 2004	CHASE MANHATTAN BANK NEW YORK	HKD/USD	426,965.82
June 2, 2004	CHASE MANHATTAN BANK NEW YORK	GBP/USD	25,183.44
June 24, 2004	CHASE MANHATTAN BANK NEW YORK	USD/CAD	-147,539.42
August 5, 2004	CHASE MANHATTAN BANK NEW YORK	USD/NZD	-5,533.60
October 4, 2004	CHASE MANHATTAN BANK NEW YORK	USD/EUR	-161,461.72
October 13, 2004	CHASE MANHATTAN BANK NEW YORK	JPY/USD	529,266.36
March 8, 2005	CHASE MANHATTAN BANK NEW YORK	AUD/USD	1,004,629.79
April 14, 2005	CHASE MANHATTAN BANK NEW YORK	HKD/USD	45,687.67
April 27, 2005	CHASE MANHATTAN BANK NEW YORK	CAD/USD	89,421.47
May 5, 2005	CHASE MANHATTAN BANK NEW YORK	SGD/USD	45,376.29
July 21, 2005	CHASE MANHATTAN BANK NEW YORK	USD/JPY	-23,712.18
September 19, 2005	CHASE MANHATTAN BANK NEW YORK	EUR/USD	504,810.76
September 29, 2005	CHASE MANHATTAN BANK NEW YORK	USD/CHF	-1,234,764.79
October 5, 2005	CHASE MANHATTAN BANK NEW YORK	GBP/USD	575,932.98
October 10, 2005	CHASE MANHATTAN BANK NEW YORK	NOK/USD	143,405.79
November 21, 2005	CHASE MANHATTAN BANK NEW YORK	USD/DKK	-531,961.79
January 18, 2006	CHASE MANHATTAN BANK NEW YORK	EUR/USD	2,330,438.77
January 18, 2006	CHASE MANHATTAN BANK NEW YORK	CHF/USD	534,638.37
February 7, 2006	CHASE MANHATTAN BANK NEW YORK	USD/JPY	-9,023.54
February 9, 2006	CHASE MANHATTAN BANK NEW YORK	USD/SEK	-704,660.58
April 5, 2006	CHASE MANHATTAN BANK NEW YORK	USD/JPY	-200,604.69
May 17, 2006	CHASE MANHATTAN BANK NEW YORK	NOK/USD	3,707.05
August 25, 2006	CHASE MANHATTAN BANK NEW YORK	GBP/USD	1,049,195.55
October 2, 2006	CHASE MANHATTAN BANK NEW YORK	USD/AUD	-576,533.74
October 25, 2006	CHASE MANHATTAN BANK NEW YORK	SGD/USD	78,390.00
December 12, 2006	CHASE MANHATTAN BANK NEW YORK	USD/DKK	-107,870.32
January 5, 2007	CHASE MANHATIAN	GBP/USD	2,655,311.05
January 19, 2007	CHASE MANHATIAN	USD/HKD	-153,573.13
March 7, 2007	CHASE MANHATIAN	EUR/USD	526,884.77
March 16, 2007	CHASE MANHATIAN	SEK/USD	59,824.76
May 8, 2007	CHASE MANHATIAN	USD/DKK	-39,031.31
May 21, 2007	CHASE MANHATIAN	HKD/USD	729,401.44
June 7, 2007	CHASE MANHATIAN	GBP/USD	580,244.58
August 23, 2007	CHASE	JPY/USD	4,921.34

Baker Hughes Incorporated Thrift Plan

Baker Hughes International Equity Fund

Date	JPMORGAN CHASE	Currency Pair	\$US Value
October 8, 2007	CHASE MANHATIAN	USD/EUR	-670,746.14
October 8, 2007	CHASE MANHATIAN	USD/CHF	-2,130,492.00
January 2, 2008	CHASE	JPY/USD	153,718.56
January 24, 2008	CHASE MANHATIAN	AUD/USD	22,996.40
March 6, 2008	CHASE MANHATIAN	USD/GBP	-310,633.99
May 5, 2008	CHASE MANHATIAN	EUR/USD	408,252.28
May 13, 2008	CHASE MANHATIAN	USD/NOK	-742,797.71
August 26, 2008	CHASE MANHATIAN	USD/DKK	-571,104.45
October 9, 2008	CHASE MANHATIAN	USD/JPY	-200,606.39
October 21, 2008	CHASE MANHATIAN	GBP/USD	290,435.38
October 21, 2008	CHASE MANHATIAN	USD/EUR	-1,311,179.80
November 14, 2008	CHASE MANHATIAN	HKD/USD	31,880.72

Date	MORGAN STANLEY	Currency Pair	\$US Value
February 17, 2004	MORGAN STANLEY AND CO NW YK DTC 050	GBP/USD	330,842.59
March 24, 2004	MORGAN STANLEY AND CO NW YK DTC 050	USD/SEK	-403,930.70
July 22, 2004	MORGAN STANLEY AND CO NW YK DTC 050	USD/NZD	-30,079.09
July 26, 2004	MORGAN STANLEY AND CO NW YK DTC 050	EUR/USD	436,718.59
September 1, 2004	MORGAN STANLEY AND CO NW YK DTC 050	USD/CAD	-15,842.26
October 15, 2004	MORGAN STANLEY AND CO NW YK DTC 050	JPY/USD	528,112.06
November 1, 2004	MORGAN STANLEY AND CO NW YK DTC 050	HKD/USD	421,298.22
November 19, 2004	MORGAN STANLEY AND CO NW YK DTC 050	NOK/USD	388,444.27
December 3, 2004	MORGAN STANLEY AND CO NW YK DTC 050	AUD/USD	488,946.28
December 3, 2004	MORGAN STANLEY AND CO NW YK DTC 050	CHF/USD	495,749.77
January 6, 2005	MORGAN STANLEY AND CO NW YK DTC 050	USD/AUD	-381,142.15
March 14, 2005	MORGAN STANLEY AND CO NW YK DTC 050	GBP/USD	818,320.62
March 21, 2005	MORGAN STANLEY AND CO NW YK DTC 050	JPY/USD	36,232.25
April 5, 2005	MORGAN STANLEY AND CO NW YK DTC 050	CAD/USD	20,730.10
April 19, 2005	MORGAN STANLEY AND CO NW YK DTC 050	HKD/USD	50,186.97
May 18, 2005	MORGAN STANLEY AND CO NW YK DTC 050	ZAR/USD	419,712.13
June 23, 2005	MORGAN STANLEY AND CO NW YK DTC 050	USD/EUR	-1,902,172.07
June 23, 2005	MORGAN STANLEY AND CO NW YK DTC 050	USD/NOK	-74,024.78
September 20, 2005	MORGAN STANLEY AND CO NW YK DTC 050	SGD/USD	9,190.44
October 5, 2005	MORGAN STANLEY AND CO NW YK DTC 050	EUR/USD	376,836.56
January 30, 2006	MORGAN STANLEY AND CO NW YK DTC 050	EUR/USD	1,023,911.45
February 21, 2006	MORGAN STANLEY AND CO NW YK DTC 050	USD/JPY	-129,767.97
February 24, 2006	MORGAN STANLEY AND CO NW YK DTC 050	USD/EUR	-726,071.23
March 1, 2006	MORGAN STANLEY AND CO NW YK DTC 050	CAD/USD	97,092.43
March 1, 2006	MORGAN STANLEY AND CO NW YK DTC 050	USD/SEK	-44,967.53
May 3, 2006	MORGAN STANLEY AND CO NW YK DTC 050	EUR/USD	813,232.40
May 5, 2006	MORGAN STANLEY AND CO NW YK DTC 050	CHF/USD	558,923.65
August 28, 2006	MORGAN STANLEY AND CO NW YK DTC 050	GBP/USD	1,113,004.24
October 8, 2006	MORGAN STANLEY AND CO NW YK DTC 050	SGD/USD	5,270.92
October 19, 2006	MORGAN STANLEY AND CO NW YK DTC 050	USD/JPY	-1,114,570.62

Date	RBS	Currency Pair	\$US Value
February 22, 2010	RBS FINANCIAL	USD/EUR	-69,183.48
March 30, 2010	RBS FINANCIAL	USD/CHF	-1,895,655.45
April 27, 2010	RBS FINANCIAL	JPY/USD	1,038,455.65
May 4, 2010	RBS FINANCIAL	GBP/USD	25,476.09
May 13, 2010	RBS FINANCIAL	USD/EUR	-61,231.51
May 17, 2010	RBS FINANCIAL	GBP/USD	4,802.46
September 1, 2010	RBS FINANCIAL	SGD/USD	543,355.95
September 17, 2010	RBS FINANCIAL	USD/AUD	-437,840.80
October 14, 2010	RBS FINANCIAL	EUR/USD	679,039.02
October 28, 2010	RBS FINANCIAL	USD/JPY	-4,933,357.38

Date	UBS	Currency Pair	\$US Value
June 3, 2003	UNION BANK OF SWIT NEW YK DTC 642	JPY/USD	307,598.51
August 5, 2003	UNION BANK OF SWIT NEW YK DTC 642	HKD/USD	6,243.14
August 21, 2003	UNION BANK OF SWIT NEW YK DTC 642	USD/DKK	-402,628.13
August 25, 2003	UNION BANK OF SWIT NEW YK DTC 642	USD/GBP	-839,286.07
September 30, 2003	UNION BANK OF SWIT NEW YK DTC 642	CAD/USD	319,425.06
October 17, 2003	UNION BANK OF SWIT NEW YK DTC 642	EUR/USD	614,463.56
October 20, 2003	UNION BANK OF SWIT NEW YK DTC 642	AUD/USD	452,498.84
November 21, 2003	UNION BANK OF SWIT NEW YK DTC 642	SEK/USD	10,205.47
December 5, 2003	UNION BANK OF SWIT NEW YK DTC 642	GBP/USD	128,086.85
December 17, 2003	UNION BANK OF SWIT NEW YK DTC 642	USD/MXN	-47,801.62
January 5, 2004	UNION BANK OF SWIT NEW YK DTC 642	USD/MXN	-35,836.66
January 29, 2004	UNION BANK OF SWIT NEW YK DTC 642	EUR/USD	1,977,913.87
February 9, 2004	UNION BANK OF SWIT NEW YK DTC 642	HKD/USD	222,268.22
March 19, 2004	UNION BANK OF SWIT NEW YK DTC 642	AUD/USD	126,074.12
March 25, 2004	UNION BANK OF SWIT NEW YK DTC 642	NOK/USD	10,190.89
April 29, 2004	UNION BANK OF SWIT NEW YK DTC 642	USD/GBP	-567,444.81
July 21, 2004	UNION BANK OF SWIT NEW YK DTC 642	USD/NZD	-119,224.39
November 5, 2004	UNION BANK OF SWIT NEW YK DTC 642	USD/CAD	-61,794.68
November 12, 2004	UNION BANK OF SWIT NEW YK DTC 642	CHF/USD	607,190.78
December 14, 2004	UNION BANK OF SWIT NEW YK DTC 642	JPY/USD	4,812.23
January 19, 2006	UNION BANK OF SWIT NEW YK DTC 642	AUD/USD	317,610.95
January 23, 2006	UNION BANK OF SWIT NEW YK DTC 642	GBP/USD	697,093.35
February 9, 2006	UNION BANK OF SWIT NEW YK DTC 642	USD/EUR	-572,988.28
February 13, 2006	UNION BANK OF SWIT NEW YK DTC 642	USD/JPY	-8,806.20
February 22, 2006	UNION BANK OF SWIT NEW YK DTC 642	USD/SEK	-108,882.23
May 4, 2006	UNION BANK OF SWIT NEW YK DTC 642	NOK/USD	165,513.27
June 19, 2006	UNION BANK OF SWIT NEW YK DTC 642	GBP/USD	291,943.34
July 11, 2006	UNION BANK OF SWIT NEW YK DTC 642	USD/EUR	-66,161.53
August 10, 2006	UNION BANK OF SWIT NEW YK DTC 642	USD/ZAR	-1,763,043.11
October 31, 2006	UNION BANK OF SWIT NEW YK DTC 642	SGD/USD	30,476.05

# Appendix 6

## ILGWU Death Benefit Fund

Date	BANK OF AMERICA	Currency Pair	\$US Value
August 2, 2012	BANK OF AMERICA NA	CHF/USD	10,065,756.20

Date	CITIBANK	Currency Pair	\$US Value
June 17, 2010	CITIBANK, N.A.	USD/BRL	3,557.89
July 20, 2010	CITIBANK, N.A.	USD/BRL	3,114.46
November 22, 2010	CITIBANK, N.A.	USD/BRL	1,051.14
November 22, 2010	CITIBANK, N.A.	USD/BRL	1,962.83
December 20, 2010	CITIBANK, N.A.	USD/BRL	3,271.87
January 14, 2011	CITIBANK, N.A.	USD/BRL	4,394.11
April 19, 2011	CITIBANK, N.A.	USD/BRL	792.63
July 22, 2011	CITIBANK, N.A.	USD/BRL	1,343.95
August 3, 2012	CITIBANK NEW YORK	GBP/USD	3,226,766.62
August 17, 2012	CITIBANK NEW YORK	CAD/USD	153,025.75
September 7, 2012	CITIBANK NEW YORK	GBP/USD	239,669.85
March 4, 2013	CITIBANK NEW YORK	CHF/USD	1,416,587.02

Date	CREDIT SUISSE	Currency Pair	\$US Value
August 17, 2012	CREDIT SUISSE INTERNATIONAL	EUR/USD	252,497.40
August 17, 2012	CREDIT SUISSE INTERNATIONAL	ZAR/USD	2,015,108.81
August 17, 2012	CREDIT SUISSE INTERNATIONAL	MXN/USD	1,250,400.45
December 31, 2012	CREDIT SUISSE INTERNATIONAL	GBP/USD	3,934,866.75
December 31, 2012	CREDIT SUISSE INTERNATIONAL	CAD/USD	1,896,261.34
December 31, 2012	CREDIT SUISSE INTERNATIONAL	MXN/USD	540,246.94
January 4, 2013	CREDIT SUISSE INTERNATIONAL	AUD/USD	426,229.44
March 1, 2013	CREDIT SUISSE INTERNATIONAL	CAD/USD	1,165,531.73
March 4, 2013	CREDIT SUISSE INTERNATIONAL	ZAR/USD	281,820.50

Date	DEUTSCHE BANK	Currency Pair	\$US Value
August 2, 2012	DEUTSCHE BANK NEW YORK	SEK/USD	3,876,832.84
August 2, 2012	DEUTSCHE BANK NEW YORK	CAD/USD	14,113,804.03
October 15, 2012	DEUTSCHE BANK NEW YORK	EUR/USD	628,981.20
October 16, 2012	DEUTSCHE BANK NEW YORK	JPY/USD	197,718.63
January 4, 2013	DEUTSCHE BANK NEW YORK	MXN/USD	233,657.89
March 4, 2013	DEUTSCHE BANK NEW YORK	AUD/USD	923,890.00

Date	HSBC	Currency Pair	\$US Value
March 4, 2013	HSBC BANK USA N.A NEW YORK	JPY/USD	766,349.14

Date	MORGAN STANLEY	Currency Pair	\$US Value
August 2, 2012	MORGAN STANLEY AND CO. INC NEW YORK	EUR/USD	30,177,840.00
August 3, 2012	MORGAN STANLEY AND CO. INC NEW YORK	EUR/USD	3,543,720.74
December 31, 2012	MORGAN STANLEY AND CO. INC NEW YORK	AUD/USD	1,569,161.77
December 31, 2012	MORGAN STANLEY AND CO. INC NEW YORK	NZD/USD	182,126.88
December 31, 2012	MORGAN STANLEY AND CO. INC NEW YORK	JPY/USD	2,779,348.15
March 4, 2013	MORGAN STANLEY AND CO. INC NEW YORK	DKK/USD	322,989.71

## ILGWU Death Benefit Fund

Date	RBS	Currency Pair	\$US Value
August 2, 2012	ROYAL BANK OF SCOTLAND PLC	ZAR/USD	3,350,641.60
August 2, 2012	ROYAL BANK OF SCOTLAND PLC	JPY/USD	24,651,150.90
August 3, 2012	ROYAL BANK OF SCOTLAND PLC	JPY/USD	2,873,218.59
August 3, 2012	ROYAL BANK OF SCOTLAND PLC	MXN/USD	2,354,146.11
September 11, 2012	ROYAL BANK OF SCOTLAND PLC	EUR/USD	283,052.00
January 4, 2013	ROYAL BANK OF SCOTLAND PLC	GBP/USD	967,031.10
January 4, 2013	ROYAL BANK OF SCOTLAND PLC	CAD/USD	429,127.95
January 7, 2013	ROYAL BANK OF SCOTLAND PLC	JPY/USD	1,610,294.96

## Currency Forward Percentages for Equity Exposure

Value Date	EUR				GBP				JPY			
	Goldman Sachs	HSBC	JP Morgan	UBS	Goldman Sachs	HSBC	JP Morgan	UBS	Goldman Sachs	HSBC	JP Morgan	UBS
03/29/2013	2%	6%	5%	5%	0%	0%	0%	0%	9%	7%	1%	7%
04/30/2013	2%	6%	5%	5%	0%	0%	0%	0%	8%	6%	0%	3%
05/31/2013	2%	6%	5%	5%	0%	0%	0%	0%	10%	2%	1%	4%
06/28/2013	2%	5%	5%	5%	0%	0%	0%	0%	10%	6%	3%	4%
07/31/2013	2%	5%	5%	5%	0%	0%	0%	0%	10%	6%	4%	4%
08/30/2013	2%	5%	5%	5%	0%	0%	0%	0%	10%	6%	4%	4%
09/30/2013	8%	5%	5%	5%	0%	0%	0%	0%	9%	5%	4%	4%
10/31/2013	7%	4%	4%	7%	0%	0%	0%	0%	9%	5%	4%	6%
11/29/2013	7%	4%	4%	7%	0%	0%	0%	0%	8%	5%	3%	6%
12/31/2013	7%	4%	4%	7%	5%	5%	5%	5%	8%	7%	3%	7%

# Appendix 7

**CITIBANK**

<u>ADR</u>	<u>Plan Name</u>	<u>Plan Year End Date</u>	<u>Shares</u>
ABB Ltd	Caterpillar Insurance Master Trust	12/31/2009	22,635
ABB Ltd	Caterpillar Insurance Master Trust	12/31/2010	1,225
ABB Ltd	Caterpillar Investment Trust	12/31/2008	52,343
ABB Ltd	HCA Incorporated Master Retirement Trust	12/31/2008	40,000
ABB Ltd	HCA Incorporated Master Retirement Trust	12/31/2010	60,000
Advanced Semiconductor Engr	Bridgestone Master Trust	10/31/2011	3,344
Astrazeneca PLC	Bridgestone Master Trust	10/31/2010	7,100
Astrazeneca PLC	Bridgestone Master Trust	10/31/2011	14,700
Astrazeneca PLC	Bridgestone Master Trust	10/31/2012	67,285
BHP Billiton Ltd	Bridgestone Master Trust	10/31/2012	27,200
BHP Billiton Ltd	Caterpillar Retirement Master Trust	11/30/2012	53,382
China Lodging Group Ltd	HCA Incorporated Master Retirement Trust	12/31/2010	18,184
Delhaize Group	Caterpillar Retirement Master Trust	11/30/2012	6,102
Diageo PLC	Bridgestone Master Trust	10/31/2010	49,300
Diageo PLC	Bridgestone Master Trust	10/31/2011	49,300
Diageo PLC	Bridgestone Master Trust	10/31/2012	52,390
Diageo PLC	Bridgestone Master Trust	10/31/2013	44,550
Diageo PLC	HCA Incorporated Master Retirement Trust	12/31/2004	88,400
Elan Corp PLC	HCA Incorporated Master Retirement Trust	12/31/2008	233,200
Enersis SA	Bridgestone Master Trust	10/31/2013	55,900
Enersis SA	Caterpillar Retirement Master Trust	11/30/2012	324,466
Enscos PLC	Bridgestone Master Trust	10/31/2010	7,200
Imperial Tobacco Group PLC	Caterpillar Insurance Master Trust	12/31/2009	18,300
Imperial Tobacco Group PLC	Caterpillar Insurance Master Trust	12/31/2010	15,800
Imperial Tobacco Group PLC	Caterpillar Insurance Master Trust	12/31/2011	7,500
Imperial Tobacco Group PLC	Caterpillar Insurance Master Trust	12/31/2012	5,700
Infineon Technologies AG	HCA Incorporated Master Retirement Trust	12/31/2008	249,430
Infineon Technologies AG	HCA Incorporated Master Retirement Trust	12/31/2010	360,286
Kering S A	Bridgestone Master Trust	10/31/2013	180,730
Koninklijke Philips	HCA Incorporated Master Retirement Trust	12/31/2004	76,200
Koninklijke Philips Electronics	Caterpillar Insurance Master Trust	12/31/2009	17,100
Koninklijke Philips Electronics	Caterpillar Insurance Master Trust	12/31/2010	6,800
KT Corp	Baker Hughes International Equity Fund	12/31/2006	51,170
KT Corp	Baker Hughes International Equity Fund	12/31/2007	51,170
KT Corp	Baker Hughes International Equity Fund	12/31/2008	51,170
KT Corp	Baker Hughes International Equity Fund	12/31/2009	51,170
KT Corp	HCA Incorporated Master Retirement Trust	12/31/2004	66,415
KT Corp	HCA Incorporated Master Retirement Trust	12/31/2008	60,465
Nestle SA	HCA Incorporated Master Retirement Trust	12/31/2004	45,200
Nestle SA	HCA Incorporated Master Retirement Trust	12/31/2008	63,600
Nokia Corp	Caterpillar Retirement Master Trust	11/30/2010	344,925
Nokia Corp	Caterpillar Retirement Master Trust	11/30/2011	304,263
Nokia Corp	Caterpillar Retirement Master Trust	11/30/2012	215,319
Nokia Corp	Caterpillar Retirement Master Trust	12/31/2012	264,928
Nokia Corp	Caterpillar Retirement Master Trust	11/30/2012	215,319
Nokia Corp	HCA Incorporated Master Retirement Trust	12/31/2004	335,200

Nokia Corp	HCA Incorporated Master Retirement Trust	12/31/2008	76,800
ORIX Corp	Bridgestone Master Trust	10/31/2013	4,258
Posco	Baker Hughes International Equity Fund	12/31/2006	15,450
Posco	HCA Incorporated Master Retirement Trust	12/31/2004	70,900
Posco	HCA Incorporated Master Retirement Trust	12/31/2008	5,600
Posco	HCA Incorporated Master Retirement Trust	12/31/2010	3,500
Shire PLC	Caterpillar Retirement Master Trust	11/30/2010	39,310
Shire PLC	Caterpillar Retirement Master Trust	11/30/2011	58,503
Shire PLC	Caterpillar Retirement Master Trust	11/30/2012	48,740
Shire PLC	Caterpillar Retirement Master Trust	12/31/2012	48,740
Shire PLC	Caterpillar Retirement Master Trust	11/30/2012	48,740
Shire PLC	HCA Incorporated Master Retirement Trust	12/31/2010	50,000
SK Telecom	HCA Incorporated Master Retirement Trust	12/31/2004	42,500
SK Telecom Ltd	Baker Hughes International Equity Fund	12/31/2006	50,630
SK Telecom Ltd	Baker Hughes International Equity Fund	12/31/2007	50,630
SK Telecom Ltd	Baker Hughes International Equity Fund	12/31/2008	53,610
SK Telecom Ltd	Caterpillar Retirement Master Trust	11/30/2012	253,105
SK Telecom Ltd	HCA Incorporated Master Retirement Trust	12/31/2008	38,690
Sony Corp	Caterpillar Insurance Master Trust	12/31/2009	19,200
Sony Corp	Caterpillar Insurance Master Trust	12/31/2010	16,498
Sony Corp	Caterpillar Insurance Master Trust	12/31/2011	13,500
Sony Corp	Caterpillar Insurance Master Trust	12/31/2012	22,671
Sony Corp	Caterpillar Retirement Master Trust	11/30/2012	164,357
Taiwan Semiconductor Mfg	Baker Hughes International Equity Fund	12/31/2006	134,800
Taiwan Semiconductor Mfg	Baker Hughes International Equity Fund	12/31/2008	387,152
Taiwan Semiconductor Mfg	Baker Hughes International Equity Fund	12/31/2009	398,444
Taiwan Semiconductor Mfg	Bridgestone Master Trust	10/31/2012	149,900
Taiwan Semiconductor Mfg	Bridgestone Master Trust	10/31/2013	127,400
Taiwan Semiconductor Mfg	Caterpillar Insurance Master Trust	12/31/2009	65,100
Taiwan Semiconductor Mfg	Caterpillar Insurance Master Trust	12/31/2010	157,100
Taiwan Semiconductor Mfg	Caterpillar Insurance Master Trust	12/31/2011	57,700
Taiwan Semiconductor Mfg	Caterpillar Insurance Master Trust	12/31/2012	59,692
Taiwan Semiconductor Mfg	HCA Incorporated Master Retirement Trust	12/31/2004	292,755
Taiwan Semiconductor Mfg	HCA Incorporated Master Retirement Trust	12/31/2008	239,244
Taiwan Semiconductor Mfg	HCA Incorporated Master Retirement Trust	12/31/2010	300,505
Telefonica SA	Baker Hughes International Equity Fund	12/31/2006	35,382
Telefonica SA	Baker Hughes International Equity Fund	12/31/2007	39,242
Telefonica SA	Baker Hughes International Equity Fund	12/31/2008	41,312
Telefonica SA	Baker Hughes International Equity Fund	12/31/2009	37,132
Telefonica SA	HCA Incorporated Master Retirement Trust	12/31/2004	43,756
Telefonica SA	HCA Incorporated Master Retirement Trust	12/31/2008	66,456
Telefonica SA	HCA Incorporated Master Retirement Trust	12/31/2010	66,456
Turkcell Iletisim Hizmetleri	Baker Hughes International Equity Fund	12/31/2008	82,000
Turkcell Iletisim Hizmetleri	Baker Hughes International Equity Fund	12/31/2009	101,830

## DEUTSCHE BANK

<u>ADR</u>	<u>Plan Name</u>	<u>Plan Year End Date</u>	<u>Shares</u>
Daiichi Sankyo Co LTD	Bridgestone Master Trust	10/31/2013	26,235
Deutsche Telekom AG	HCA Incorporated Master Retirement Trust	12/31/2004	93,500
Ericsson	Caterpillar Retirement Master Trust	11/30/2011	2,953,536
Ericsson	Caterpillar Retirement Master Trust	11/30/2012	335,000
Ericsson	Caterpillar Retirement Master Trust	12/31/2012	375,938
Ericsson	Caterpillar Insurance Master Trust	12/31/2009	82,700
Ericsson	Caterpillar Insurance Master Trust	12/31/2010	70,000
Ericsson	Caterpillar Insurance Master Trust	12/31/2011	34,740
Ericsson	Caterpillar Insurance Master Trust	12/31/2012	26,000
Ericsson	Caterpillar Retirement Master Trust	11/30/2010	632,300
Ericsson	Caterpillar Retirement Master Trust	11/30/2012	335,000
Ericsson	HCA Incorporated Master Retirement Trust	12/31/2008	121,330
Ericsson	HCA Incorporated Master Retirement Trust	12/31/2010	208,960
Genesis Lease Ltd	HCA Incorporated Master Retirement Trust	12/31/2007	65,900
Genesis Lease Ltd	HCA Incorporated Master Retirement Trust	12/31/2008	94,600
Grifols SA	Caterpillar Insurance Master Trust	12/31/2012	3,775
Icici Bk Ltd	Baker Hughes International Equity Fund	12/31/2008	42,140
Icici Bk Ltd	Caterpillar Insurance Master Trust	12/31/2009	15,300
Icici Bk Ltd	Caterpillar Insurance Master Trust	12/31/2010	15,600
Icici Bk Ltd	HCA Incorporated Master Retirement Trust	12/31/2004	110,900
Icici Bk Ltd	HCA Incorporated Master Retirement Trust	12/31/2008	44,370
Icici Bk Ltd	HCA Incorporated Master Retirement Trust	12/31/2010	93,371
Infosys Technologies Ltd	Caterpillar Insurance Master Trust	12/31/2010	9,400
Infosys Technologies Ltd	Caterpillar Insurance Master Trust	12/31/2011	8,200
SAP AG	Caterpillar Insurance Master Trust	12/31/2009	11,100
SAP AG	Caterpillar Insurance Master Trust	12/31/2010	9,300
SAP AG	Caterpillar Insurance Master Trust	12/31/2011	11,103
SAP AG	Caterpillar Insurance Master Trust	12/31/2012	11,973
SAP AG	Caterpillar Retirement Master Trust	11/30/2012	167,487
SAP AG	HCA Incorporated Master Retirement Trust	12/31/2008	59,870
Siemens AG	HCA Incorporated Master Retirement Trust	12/31/2008	32,810
SK Telecom Ltd	Caterpillar Retirement Master Trust	11/30/2010	286,257
SK Telecom Ltd	Caterpillar Retirement Master Trust	11/30/2011	344,957
SK Telecom Ltd	Caterpillar Retirement Master Trust	11/30/2012	33,447
SK Telecom Ltd	Caterpillar Retirement Master Trust	12/31/2012	245,055
Sterlite	Baker Hughes International Equity Fund	12/31/2009	40,000
Swiss Re LTD	Bridgestone Master Trust	10/31/2013	6,159
Tenaris SA	Caterpillar Insurance Master Trust	12/31/2010	19,044
Tenaris SA	Caterpillar Insurance Master Trust	12/31/2011	17,800
Tenaris SA	Caterpillar Insurance Master Trust	12/31/2012	18,514
Tenaris SA	Caterpillar Retirement Master Trust	11/30/2012	248,641

Tenaris SA	HCA Incorporated Master Retirement Trust	12/31/2008	15,200
Tenaris SA	HCA Incorporated Master Retirement Trust	12/31/2010	10,500
Unilever NV	Bridgestone Master Trust	10/31/2010	99,000
Unilever NV	Bridgestone Master Trust	10/31/2011	99,000
Unilever NV	Bridgestone Master Trust	10/31/2012	134,000
Unilever NV	Bridgestone Master Trust	10/31/2013	157,000
Unilever NV	HCA Incorporated Master Retirement Trust	12/31/2004	67,100

<u>ADR</u>	<u>JP MORGAN</u>	<u>Plan Name</u>	<u>Plan Year End Date</u>	<u>Shares</u>
Alcatel-Lucent		Bridgestone Master Trust	10/31/2010	162,082
Alcatel-Lucent		ILGWU Death Benefit Fund	12/31/2006	43,000
ASML Holdings NV		Caterpillar Insurance Master Trust	12/31/2009	31,788
ASML Holdings NV		Caterpillar Insurance Master Trust	12/31/2010	9,088
ASML Holdings NV		Caterpillar Insurance Master Trust	12/31/2011	14,741
ASML Holdings NV		Caterpillar Insurance Master Trust	12/31/2012	154
Banco Santander Brasil SA		Caterpillar Retirement Master Trust	11/30/2012	74,002
BP PLC		Bridgestone Master Trust	10/31/2010	37,150
BP PLC		Bridgestone Master Trust	10/31/2011	64,492
BP PLC		Bridgestone Master Trust	10/31/2012	64,965
BP PLC		Bridgestone Master Trust	10/31/2013	76,488
BP PLC		Caterpillar Retirement Master Trust	11/30/2010	113,700
BP PLC		Caterpillar Retirement Master Trust	11/30/2011	144,100
BP PLC		Caterpillar Retirement Master Trust	11/30/2012	114,000
BP PLC		Caterpillar Retirement Master Trust	12/31/2012	114,000
BP PLC		Caterpillar Insurance Master Trust	12/31/2009	13,200
BP PLC		Caterpillar Insurance Master Trust	12/31/2010	16,600
BP PLC		Caterpillar Insurance Master Trust	12/31/2011	17,300
BP PLC		Caterpillar Insurance Master Trust	12/31/2012	14,000
BP PLC		Caterpillar Retirement Master Trust	11/30/2012	114,000
BP PLC		HCA Incorporated Master Retirement Trust	12/31/2004	32,100
BP PLC		HCA Incorporated Master Retirement Trust	12/31/2010	64,180
BP PLC		HCA Incorporated Master Retirement Trust	12/31/1008	64,180
Chungwa Telecom		HCA Incorporated Master Retirement Trust	12/31/1008	77,524
Chungwa Telecom Co		Baker Hughes International Equity Fund	12/31/2006	108,194
Chungwa Telecom Co		Baker Hughes International Equity Fund	12/31/2007	108,194
Chungwa Telecom Co		HCA Incorporated Master Retirement Trust	12/31/2004	71,700
Companhia Siderurgica Nacional		HCA Incorporated Master Retirement Trust	12/31/2010	59,000
Companhia Siderurgica Nacional		HCA Incorporated Master Retirement Trust	12/31/1008	53,000
Companhia Vale do Rio Doce (now Vale SA)		Baker Hughes International Equity Fund	12/31/2007	28,500
Companhia Vale do Rio Doce (now Vale SA)		Baker Hughes International Equity Fund	12/31/2008	86,500
Companhia Vale do Rio Doce (now Vale SA)		Baker Hughes International Equity Fund	12/31/2008	43,700
Daqo New Energy Corp		HCA Incorporated Master Retirement Trust	12/31/2010	40,000
Ecopetrol SA		Caterpillar Retirement Master Trust	11/30/2012	64,100
Embraer-Empresa Brasileira de Aeronautica		HCA Incorporated Master Retirement Trust	12/31/2004	32,330

Embraer-Empresa Brasileira de Aeronautica	HCA Incorporated Master Retirement Trust	12/31/2010	54,510
Embraer-Empresa Brasileira de Aeronautica	HCA Incorporated Master Retirement Trust	12/31/1008	46,150
HDFC Bk Ltd	HCA Incorporated Master Retirement Trust	12/31/2010	12,092
LDK Solar Co Ltd	HCA Incorporated Master Retirement Trust	12/31/2010	67,900
Magyar Telecom	HCA Incorporated Master Retirement Trust	12/31/2004	12,715
Nice Sys Ltd	Caterpillar Retirement Master Trust	11/30/2012	16,448
Nidec Corp	Bridgestone Master Trust	10/31/2013	19,900
Novartis AG	Caterpillar Retirement Master Trust	11/30/2010	340,800
Novartis AG	Caterpillar Retirement Master Trust	11/30/2011	344,400
Novartis AG	Caterpillar Retirement Master Trust	11/30/2012	248,751
Novartis AG	Caterpillar Retirement Master Trust	12/31/2012	467,950
Novartis AG	Caterpillar Retirement Master Trust	11/30/2012	248,751
Novo-Nordisk AS	Bridgestone Master Trust	10/31/2011	15,200
Novo-Nordisk AS	Bridgestone Master Trust	10/31/2012	2,170
Novo-Nordisk AS	Caterpillar Insurance Master Trust	12/31/2012	4,712
Novo-Nordisk AS	Caterpillar Retirement Master Trust	11/30/2012	63,621
Novo-Nordisk AS	Bridgestone Master Trust	10/31/2010	16,300
Rio Tinto PLC	HCA Incorporated Master Retirement Trust	12/31/2004	33,300
Rio Tinto PLC	ILGWU Death Benefit Fund	12/31/2006	3,100
Rio Tinto PLC	ILGWU Death Benefit Fund	12/31/2010	5,000
Sanofi	Bridgestone Master Trust	10/31/2010	18,846
Sanofi	Bridgestone Master Trust	10/31/2011	35,924
Sanofi	Caterpillar Retirement Master Trust	11/30/2012	436,071
Sanofi-Aventis	HCA Incorporated Master Retirement Trust	12/31/2004	36,000
Sony Corp	HCA Incorporated Master Retirement Trust	12/31/2004	104,200
Sony Corp	ILGWU Death Benefit Fund	12/31/2004	26,000
Teva Pharmaceuticals	Baker Hughes International Equity Fund	12/31/2009	15,500
Teva Pharmaceuticals	Bridgestone Master Trust	10/31/2011	120,000
Teva Pharmaceuticals	Bridgestone Master Trust	10/31/2012	145,000
Teva Pharmaceuticals	Bridgestone Master Trust	10/31/2013	115,000
Teva Pharmaceuticals	Caterpillar Insurance Master Trust	12/31/2009	44,860
Teva Pharmaceuticals	Caterpillar Insurance Master Trust	12/31/2010	64,190
Teva Pharmaceuticals	Caterpillar Insurance Master Trust	12/31/2011	69,550
Teva Pharmaceuticals	Caterpillar Insurance Master Trust	12/31/2012	65,509
Teva Pharmaceuticals	Caterpillar Retirement Master Trust	11/30/2012	772,706
Teva Pharmaceuticals	HCA Incorporated Master Retirement Trust	12/31/2010	35,000
Teva Pharmaceuticals	HCA Incorporated Master Retirement Trust	12/31/1008	57,803
Total SA	Bridgestone Master Trust	10/31/2010	48,857
Total SA	Bridgestone Master Trust	10/31/2011	51,226
Total SA	Bridgestone Master Trust	10/31/2012	60,096
Total SA	Caterpillar Retirement Master Trust	11/30/2012	2,977
Vale SA	Baker Hughes International Equity Fund	12/31/2009	86,500

Vale SA	Baker Hughes International Equity Fund	12/31/2009	40,800
Vale SA	Caterpillar Retirement Master Trust	11/30/2012	170,252
Vale SA	HCA Incorporated Master Retirement Trust	12/31/2010	130,036
Volkswagen AG	Bridgestone Master Trust	10/31/2010	20,985
Volkswagen AG	HCA Incorporated Master Retirement Trust	12/31/2010	32,960